

India's Rural Habitat in Need of Rejuvenation

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ABSTRACT

After food and clothing housing is the most important aspect of life. In rural areas due to extreme poverty the housing condition remained worst affected since time immemorial. In most of the cases the material used in the housing continued to be the locally available earthern and wooden combination for thatched shelter. Even the housing number remained far shorter than the required for millions of families. Also the size of the housing generally do not provide the basics of the privacy required in the family life. Recently deforestation has affected the rural habitat, except in those areas where stones and rock slabs are easily available. Taped water, latrine and electricity among rural households is a rare phenomenon. In absence of any major innovation for affordable and durable material of housing the future of rural habitat seems to be bleak.

1. INTRODUCTION

In India the rapid rate of population growth with more than one-third population living below poverty line side-tracks the planners to seriously undertake within the given budget the next most important requirement of humanity, i.e., housing. The result is that India has worst condition of housing among the third-world countries. The size of the household varies from one state to another and accordingly the size of dwelling is required. The average size of household in rural India is 5.58 (Total Rural+Urban = 5.52), when the lowest average is in Chandigarh, i.e. 4.38.

In India as a whole only 30.96 per cent rural households occupy pucca houses. According to the definition of 'Census of India (1991)',¹ a pucca house is one of which the predominant material of wall and roof are as given below :

Wall : Burnt bricks, GI sheets, or other metal sheets, stone, Cement, concrete, etc.

Roof : Tiles, slate, corrugated iron, zinc or other metal or asbestos cement sheet, bricks, limestone, RCC/RCC, etc.

1. Census of India, 1991, Houses and Household Amenities, Series I, Part VII.

Housing is important for development in both economic and welfare terms.² After food, housing is typically the largest item of household expenditure for poor families, and that they are willing to go to great lengths to obtain housing at locations with access to employment, even if this means incurring the risks of illegal "squatting."³ In India due to an explosive increase in population, low income levels, low rate of addition to the housing stock, inadequate maintenance of the existing housing stock, etc. the housing problem has been assuming more and more alarming proportions.

For example the households coming under highest the monthly per capita expenditure class of Rs.385 and above have no katcha dwellings and only less than 10 per cent dwellings are semi-pucca. Whereas the households with least monthly per capita expenditure class of less than Rs.65 have about 70 per cent kutchha dwellings and have no pucca dwelling in rural areas. Similarly the per capita covered area in sq. m. is highest among the highest monthly per capita expenditure class, which is 16.2 m². When the covered area is least, i.e. 3.9 m² of least monthly per capita expenditure class.

2. World Bank, 1975, Housing : Sector Policy Paper, Washington, p.3

3. World Bank, 1975, Housing : Sector Policy Paper, Washington, p.2

2. OWNERSHIP OF RESIDENTIAL HOUSES

Table 1 shows that the ownership in advanced countries is much less like in Japan 57.8 per cent, Canada 61.8 per cent and Australia 66.7 per cent, whereas in Bangladesh and

Table 1 : Housing Situation in Few Countries

Country	Year	Average size of occupied persons per HH	Average No. of pied persons per ho- using unit	Average No. of rooms per room	Average persons per room
India	1971*	5.6	84.6	2.0	2.8
	1983**	5.6	83.0	2.2	2.7
Bangladesh	1973*	5.9	92.4	2.0	2.9
	1983**	6.1	91.0	-	-
Egypt	1976*	5.2	-	-	1.8
	1983**	5.1	-	3.5	1.4
Japan	1978*	3.5	57.8	-	-
	1983**	3.4	63.0	4.2	0.6
Israel	1978*	3.7	70.6	2.9	1.2
	1983**	3.9	72.0	2.6	1.3
Australia	1976*	3.1	66.7	5.4	0.6
	1983**	3.0	74.0	4.9	0.5
Canada	1976*	3.2	61.8	5.4	0.6
	1983**	2.4	64.0	5.6	0.5

Source : * UN Statistical Year Book, 1976, 1977 and 1978.
 ** International Marketing Data and Statistics, 1987-88
 12th Edition, Euromonitor Publications Ltd., 1987.

India it is 92.4 and 86.2 per cent respectively which is too high. It indicates that in advanced countries housing is considered as an industry, whereas in developing countries it is still an individual's responsibility. In India also if housing is also declared as an industry, it may solve the housing problem upto a major extent, where people may go for a lease in the competitive market. In some of the states and Union Territories the proportion of ownership is much less in comparison to national average, are Chandigarh 46.0 per cent, Andaman and Nicobars 59.2 per cent, Delhi 66.1 per cent and Arunachal Pradesh 67.3 per cent. Here Chandigarh and Delhi are predominantly urban, therefore, upto certain extent industrialisation aspect of housing prevails like the overall situation of urban India, i.e. 65.6 per cent ownership. In Andaman and Nicobars and Arunachal Pradesh, situation is different, as they are the sensitive areas and government has provided the housing facility upto a large extent.

3. CONDITION OF RESIDENCE

3.1 Households by Flood Risk of Building

Table 2 shows that in India due to improper drainage system and torrential rains about 18.5 per cent rural households suffer by flood risk of their houses. In such condition houses need expensive repairing and their longevity is reduced. States/Union Territories where more than one-fifth households suffer with flood risk of their houses are

Table 2 : Rural Households by Flood Risk of Building and With No Approach Road

State/Union Territories	Percentage Distribution of HH by Flood Risk of Building	Percentage Distribution of HH by No Approach Road to Building
Andhra Pradesh	16.3	29.1
Assam	49.0	34.5
Bihar	37.1	46.7
Gujarat	10.4	37.8
Haryana	6.9	3.7
Himachal Pradesh	10.0	71.6
Jammu & Kashmir	16.8	57.5
Karnataka	6.6	31.1
Kerala	8.8	49.8
Madhya Pradesh	5.0	48.2
Maharashtra	6.5	32.6
Manipur	27.8	40.7
Meghalaya	3.1	63.9
Nagaland	-	-
Orissa	18.1	17.7
Punjab	29.3	16.8
Rajasthan	6.8	12.1
Sikkim	0.7	76.1
Tamil Nadu	11.4	26.7
Tripura	6.8	45.1
Uttar Pradesh	23.6	42.3
West Bengal	34.7	36.0
Andaman & Nicobar	9.3	30.3
Arunachal Pradesh	6.7	53.9
Chandigarh	5.7	22.0
Dadar & Nagar Haveli	0.9	65.7
Delhi	-	3.6
Goa	-	60.2
Lakshadweep	15.7	56.6
Mizoram	1.7	53.5
Pondicherry	16.3	21.4
Daman & Diu	9.9	9.7
All India	18.5	37.5

Source : Sarvekshna, 52nd Issue, Vol.XVI, No.1, July-September, 1992, NSS - 43rd Round (Surveyed in July 1987 - June 1988).

Assam 49.0 per cent, Bihar 37.1, Manipur 27.8, Punjab 29.3, Uttar Pradesh 23.3 and West Bengal 34.7 per cent. There is no State/Union Territories where more or less houses are not affected by flood.

3.2 Households by No Approach Road

In India there are households without any approach road to their buildings. According to Table 2, in rural areas such households are 37.5 per cent. There are States/Union Territories where more than half of the households are deprived without an approach road. They are Sikkim 76.1 per cent, Dadar and Nagar Haveli 65.7, Meghalaya 63.9, Goa 60.2, Jammu and Kashmir 57.5, Lakshadweep 56.6, Arunachal Pradesh 53.9 and Mizoram 53.5 per cent.

3.3 Livings in Slum/Bustee Areas

According to NSS Table 3 in India about 6.3 per cent households of rural live in slum/bustee areas and out of which 47.0 per cent live in katcha structures.

In rural India there are States/UTs where more one-tenth households live in slum/bustee areas, i.e. Arunachal Pradesh 48.6 per cent, Pondicherry 28.9, Assam 15.0, Maharashtra 12.5, Manipur 10.6 and Mizoram 10.2. There are several reasons of slums/bustees, i.e. (i) rampant poverty; (ii) wrong housing policies/planning and no innovation for housing materials in alluvial plains.

Table 3 : Rural Households Living in Slum/Bustee Areas and Their Proportion Living in Katcha Structures

State/Union Territories	Percentage of HH living in Slum/Bustee Areas	Percentage of Slum/Bustee dwellers living in katcha structures
Andhra Pradesh	6.7	65.1
Assam	15.0	73.0
Bihar	6.8	53.3
Gujarat	4.7	15.1
Haryana	2.0	15.3
Himachal Pradesh	5.4	5.9
Jammu & Kashmir	2.2	12.2
Karnataka	7.4	41.1
Kerala	1.7	28.2
Madhya Pradesh	8.1	22.3
Maharashtra	12.5	26.7
Manipur	10.6	82.4
Meghalaya	5.0	58.1
Nagaland	-	-
Orissa	6.4	79.5
Punjab	3.5	20.8
Rajasthan	5.4	39.7
Sikkim	7.6	9.6
Tamil Nadu	6.3	62.4
Tripura	8.9	80.0
Uttar Pradesh	3.7	50.6
West Bengal	4.0	71.9
Andaman & Nicobar	1.0	-
Arunachal Pradesh	48.6	96.0
Chandigarh	N.A.	N.A.
Dadar & Nagar Haveli	5.2	23.1
Delhi	N.A.	N.A.
Goa	-	-
Lakshadweep	1.1	-
Mizoram	10.2	79.1
Pondicherry	28.9	73.1
Daman & Diu	-	-
All India	6.3	47.0

Source : Sarvekshna, 32nd Issue, Vol.XVI, No.1, July-September, 1992, NSS - 43rd Round (Surveyed in July 1987 - June 1988).

3.4 Quality of Houses

As per definition of pucca houses by the Census of India as mentioned earlier, India has 30.96 per cent rural houses as pucca.⁴ Among some of the states/UTs the situation in rural areas is worst where pucca houses are even less than 15 per cent i.e. Tripura 1.99, Manipur 4.36, Nagaland 8.39, Andaman and Nicobars 8.84, Assam 10.90, Meghalaya 12.08, Arunachal Pradesh 12.25 and Orissa 13.52. There are also few states/UTs where rural pucca houses are above 45 per cent i.e. Delhi 86.88, Lakshadweep 83.91, Punjab 72.23, Daman and Diu 71.23, Chandigarh 58.79, Kerala 51.80, Himachal Pradesh 49.88 and Rajasthan 47.28. Rural areas of Delhi and Chandigarh are almost the part of the greater metropolitan system whereas Punjab, Kerala, Lakshadweep and Daman and Diu are the most affluent states/UTs in India. Himachal Pradesh and Rajasthan states are gifted with the abundance of natural wealth of stones for pucca houses.

4. SIZE OF ACCOMMODATION

4.1 Covered Area

We can get the idea of size of accommodation by Table 4, i.e., per capita covered area in square metres. In India

4. Ibid.

Table 4 : Per Capita Covered Area (M^2) by Type of Structure in Urban Areas of India

State/Union Territories	Kutcha	Semi-Pucca	Pucca	All Categories
Andhra Pradesh	13.9	56.5	39.3	32.7
Assam	13.6	15.6	26.5	14.6
Bihar	12.1	17.5	23.8	15.0
Gujarat	32.2	41.3	41.2	38.0
Haryana	6.4	10.8	14.6	12.5
Himachal Pradesh	10.1	13.3	11.0	12.1
Jammu & Kashmir	8.9	8.8	18.2	10.9
Karnataka	8.6	10.5	12.8	10.4
Kerala	6.1	8.9	14.2	10.4
Madhya Pradesh	15.5	18.7	53.2	21.0
Maharashtra	6.5	8.3	12.7	8.5
Manipur	29.5	10.6	6.4	23.1
Meghalaya	8.6	5.4	5.7	7.2
Nagaland	N.A.	N.A.	N.A.	N.A.
Orissa	6.6	7.8	9.9	7.0
Punjab	5.0	7.1	13.7	10.4
Rajasthan	8.2	12.9	11.0	7.1
Sikkim	9.7	4.7	4.4	5.9
Tamil Nadu	4.6	6.2	8.8	6.1
Tripura	5.9	6.9	12.9	6.0
Uttar Pradesh	17.3	13.3	13.0	15.0
West Bengal	*	*	*	*
Andaman & Nicobar	6.2	6.1	15.4	7.8
Arunachal Pradesh	73.0	21.5	46.4	53.9
Chandigarh	4.9	4.8	20.6	12.7
Dadar & Nagar Haveli	5.1	4.6	12.9	5.6
Delhi	-	16.2	13.4	13.9
Goa, Daman & Diu	9.2	14.5	13.3	13.4
Lakshadweep	7.7	11.4	12.1	11.5
Mizoram	40.1	9.7	-	24.8
Pondicherry	3.4	4.4	9.7	5.2
All India	39.2	33.9	26.3	34.8

Source : Sarvekshna, 52nd Issue, Vol.XVI, No.1, July-September, 1992, NSS - 43rd Round (Surveyed in July 1987 - June 1988).

* Figures are unbelievably high, thus it could not be considered for analysis

average per capita covered area in rural areas is 34.8 m^2 . The highest average per capita covered area available in kutcha houses is 39.2 m^2 than in semi pucca 33.9 or pucca houses 26.3 in rural areas.

In rural India the largest per capita, i.e. 15 m^2 and above, covered area of kutcha houses are in Arunachal Pradesh 73, Mizoram 40.1, Gujarat 32.2, Manipur 29.5, Uttar Pradesh 17.3 and Madhya Pradesh 15.5 m^2 . Per capita large covered area of semi-pucca houses are in Andhra Pradesh 56.5, Gujarat 41.3, Arunachal Pradesh 21.5, Madhya Pradesh 18.7, Bihar 17.5, Delhi 16.2 and Assam 15.6 m^2 . Highest per capita covered area of pucca houses in rural areas are in Madhya Pradesh 53.2, Arunachal Pradesh 46.3, Gujarat 41.2, Andhra Pradesh 39.3, Assam 26.5, Bihar 23.8, Chandigarh 20.6, Jammu and Kashmir 18.2 and Andaman and Nicobar 15.4.

4.2 Room Occupancy

In India the majority of rural households occupy the minimum size of accommodation. About 40.8 per cent households live in one room houses, 30.7 per cent in two room houses, 13.5 per cent in three room houses and 6.9 per cent in four room houses and rest with unspecified room houses. Among the Scheduled Castes and Scheduled Tribes the situation is worst as 48.1 per cent Scheduled Castes, 51.2 per cent Scheduled Tribes live in one room houses, 31.0 per cent Scheduled Castes, 30.1 per cent Scheduled Tribes in two

rooms, 10.8 per cent Scheduled Castes, 10.3 per cent Scheduled Tribes in three room houses, 4.7 per cent SC, 3.8 per cent ST in four room houses. The following Table 5 shows that the situation among the Scheduled Castes and Scheduled Tribes is worst in comparison to other households.

Table 5 : Percentage of Rural Households Occupying Rooms in India

	One Room	Two Rooms	Three Rooms	Four Rooms
Overall	40.8	30.7	13.5	6.9
Scheduled Castes	48.1	31.0	10.8	4.7
Scheduled Tribes	51.3	30.8	10.3	3.8

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

The worst condition of rural living is observed in five states/UTs where one room occupying households are more than 50 per cent, e.g. Tripura 68.6, Maharashtra 65.7, West Bengal 59.4, Pondicherry 54.0 and Tamil Nadu 57.9 per cent. Their details are given in Table 6.

Among the well-off States/UTs which have less than 25 per cent rural households living in one room tenement are Laksha-dweep 8.0, Kerala 12.7, Manipur 17.7 and Nagaland 20.1. More than 65 per cent rural Scheduled Castes households occupying one room tenement are in Chandigarh R.81.0, Tamil Nadu R.69.6, Maharashtra R.69.6 and U.65.6.

Pondicherry U.67.7 and West Bengal R.65.8 per cent. Among the rural Scheduled Tribes household occupying one room by more than 65 per cent households are in Goa R.88.5, Tripura R.79.4 and U.72.7, Tamil Nadu R.76.2, Maharashtra R.74.8, Andaman and Nicobars R.68.8, Gujarat R.66.6, Daman and Diu R.66.3, West Bengal R.65.6 and Andhra Pradesh R.65.3 per cent.

Table 6 : Percentage of Rural Households Occupying Rooms in States/Union Territories

State/UTs	One Room	Two Rooms	Three Rooms	Four Rooms
<u>Worst Condition of Living</u>				
Tripura	68.6	21.9	6.3	1.9
Maharashtra	65.7	20.8	5.1	1.5
West Bengal	59.4	26.3	7.1	4.5
Tamil Nadu	57.9	28.8	8.2	3.1
Pondicherry	54.0	25.5	6.1	1.9
<u>Good Condition of Living</u>				
Lakshadweep	8.0	24.9	29.8	21.3
Kerala	12.7	27.7	24.5	16.0
Manipur	17.7	32.3	28.0	13.5
Nagaland	20.1	40.3	23.2	10.0

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

Comparatively least concentration of rural Scheduled Castes in one room tenaments is in Arunachal Pradesh R.17.4, Manipur 20.3 and Kerala 26.3 per cent. Among rural S.T.

concentrations in one room set is least in Manipur 22.0, Nagaland 20.1, Sikkim 24.8, and Lakshadweep 7.8 per cent.

5. HOUSING REQUIREMENT

India has only 30.96 per cent pucca houses in rural areas and majority of the households live in one room accommodation. But we can't think for the improvement of quality as yet as we already have acute shortage of houses in

Table 7 : Acute Rural Housing Shortage, 1991

State/Union Territories	No. of Houses	Percentage
Pondicherry	6085	11.09
Arunachal Pradesh	14995	11.09
Bihar	1038876	9.33
Dadar & Nagar Haveli	1176	5.21
Orissa	334192	6.91
Daman & Diu	585	6.33
Uttar Pradesh	680382	3.92
Goa	6277	4.85
Haryana	60152	3.30
Delhi	1577	0.10

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

the country which needs priority.⁵ The shortage of houses in rural areas is about 3.65 million or 3.38 per cent. The above Table 7 shows the acute shortage of houses in different states and Union Territories.

However, there are major states which somehow do not emerge in terms of percentage for house shortage where house shortage is above one lakh, Andhra Pradesh 322,963, Maharashtra 299,855, Madhya Pradesh 282,161, West Bengal 135,575 and Karnataka 126,399.

6. HOUSING RELATED FACILITIES

Basic housing related facilities like drinking water, toilet and electricity are the most essential requirements for today's rural India.

6.1 Drinking Water Facility

In India rural households with drinking water generally with pipe tap within the premises are 23.2 per cent in rural areas. In rural India drinking water within the premises of SC and ST are 15.6 per cent and 10.8 per cent respectively. Table 8 shows the State/UTs-wise rural households with water facility within their premises. Among the states/UTs, four are on the top where more than 65 per cent rural households

5 According to NSS 44th Round (July 88-June 1989), Report No.376 in rural India the percentage of bad condition of dwellings are in pucca 4.08, Semi pucca 13.42 and kutchha 41.88.

have drinking water facility within their premises, they are Lakshadweep 92.5, Punjab 78.3, Delhi 68.3 and Kerala 65.8 per cent. The worst served states/UTs are Mizoram, Tamil Nadu, Karnataka, Rajasthan, Madhya Pradesh, Andhra Pradesh, Orissa and Daman and Diu, where less than 15 per cent rural households are provided drinking water within their premises. Among the down-trodden, i.e. SC and ST the availability of drinking water within the premises is least in comparison to overall population.

Table 8 : Percentage of Rural Households with Drinking Water Within the Premises

State/UTs	Total	State/UTs	S.C.	State/UTs	S.T.
<u>Highest</u>	60>%		40>%		30>%
Lakshadweep	92.5	Punjab	69.4	Lakshadweep	92.7
Punjab	78.3	Delhi	55.1	Sikkim	56.2
Delhi	68.3	Kerala	47.0	Kerala	46.4
Kerala	65.8	Dadar & Nagar Haveli	47.0	Assam	34.8
		Sikkim	42.1	U.P.	31.8
				Goa	30.8
<u>Lowest</u>	<15%		<10%		<10%
Mizoram	4.2	Karnataka	3.1	A.P.	3.5
Tamil Nadu	9.7	Mizoram	4.1	Mizoram	4.2
Karnataka	10.3	Pondicherry	5.7	Tamil Nadu	4.3
Rajasthan	12.5	A.P.	6.5	Rajasthan	4.4
M.P.	13.2	M.P.	7.9	Bihar	6.2
A.P.	14.0	Rajasthan	8.9	Karnataka	6.2
Orissa	14.4	Orissa	9.5	Orissa	6.8
Daman & Diu	14.5			West Bengal	7.5
				Daman & Diu	7.6
				M.P.	8.7

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

The above analysis reveals that more than two-thirds rural households do not have drinking water facility within their premises and they have to waste a lot of time to fetch water from even far-off places. In our study we found that the time duration for fetching water from different sources was between 2 to 4 hours. Its answer is not only in mismanagement of water supply but also drying the water sources due to ineffective environmental policies.

6.2 Toilet

Toilet is one of the most important aspect of housing. In India only 11.4 per cent rural households avail toilet

Table 9: Percentage of Rural Households with Toilet Facility

State/UTs	Total	State/UTs	S.C.	State/UTs	S.T.
<u>Highest</u>	40%		30%		30%
Lakshadweep	81.7	Tripura	73.0	Lakshadweep	81.8
Tripura	63.1	Mizoram	53.3	Mizoram	60.2
Mizoram	60.7	Arunachal P.	46.4	Arunachal P.	41.2
Kerala	46.0	Meghalaya	32.4	Tripura	36.5
Arunachal P.	41.9	Manipur	32.1	Sikkim	31.2
<u>Lowest</u>	< 5%		< 2%		< 2%
M.P.	3.7	Chandigarh	1.8	Goa	0.5
Orissa	4.0	M.P.	1.9	Orissa	0.7
Chandigarh	4.7	Orissa	1.9	Rajasthan	0.9
				M.P.	1.0
				Bihar	1.0
				A.P.	1.4

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

facility within their premises. In fact in rural areas it is a part of tradition and culture that people prefer to defecate in their fields from hygienic and environmental point of view. But it becomes a great problem when they defecate on road and railway sides and make the area polluted. Table 9 shows the sharp contrast in various states/UTs.

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The states/UTs where more than 40 per cent rural households use their toilets at home are Lakshadweep 81.7, Tripura 63.1, Mizoram 60.7, Kerala 46.0 and Arunachal Pradesh 41.9. In fact among all these states the impact of westernisation through Christian Missionaries is an important factor and among the SC and ST population, the impact is quite high. The lowest i.e. less than 5 per cent households using their toilets in rural areas are in Madhya Pradesh 3.7, Orissa 4.0 and Chandigarh 4.7. States/UTs where less than 2 per cent SC households use their toilets are Chandigarh 1.8, M.P. 1.9 and Orissa 1.9, whereas ST households are in Goa 0.5, Orissa 0.7, Rajasthan 0.9, M.P. 1.0, Bihar 1.0 and Andhra Pradesh 1.4. All the above states/UTs have least impact of Christian Missionaries (See Table 9).

6.3 Electricity

Electricity is one of the most important facility in the households and no house without electricity is now considered complete. Besides lighting, our day to day activities of the

family depend upon electricity. Our country is bigger in size as well as in population but the sources and production of electricity are limited and the result is that in India only 45.7 per cent households are provided with electricity. In rural and urban areas the gap is too much as only 33.1 per cent rural households are with electricity (when 70 per cent India's population lives in rural areas. There is an extreme regional variation throughout the country, which also correlates with the poverty and affluence, reflecting the socio-economic and cultural status of the society. Here it is worth to mention that it is not necessary that the

Table 10: Percentages of Rural Households with Electricity

State/UTs	Total	State/UTs	S.C.	State/UTs	S.T.
<u>Highest</u>	60%		60%		50%
Lakshadweep	98.9	Daman & Diu	96.9	Lakshadweep	98.9
Daman & Diu	93.9	Himachal P.	82.7	Daman & Diu	83.0
Himachal P.	87.5	Sader & Nagar		Himachal P.	72.5
Goa	63.3	Reveli	61.8	Sikkim	66.5
Punjab	79.7	Goa	74.9	Nagaland	50.7
Chandigarh	68.9	Punjab	66.4	Andaman & Nic.	50.3
Haryana	66.7	Gujarat	61.2		
Delhi	64.6	Delhi	60.6		
<u>Lowest</u>	<20%		<20%		<10%
Bihar	6.2	Bihar	4.3	Goa	1.3
U.P.	12.6	U.P.	7.1	Bihar	3.0
Assam	13.0	Assam	11.9	Assam	6.0
West Bengal	18.4	West Bengal	13.0	Orissa	6.1
Meghalaya	18.4	Orissa	13.1	Rajasthan	8.2
		Rajasthan	16.7	West Bengal	8.6

Source : Calculated from Table on Houses and Household Amenities, Census of India, Series I, Part VII, 1991.

households with electric connections are enjoying the continuous electric supply. The shortage of electricity is the main hurdle for India's uniform regional development.

The above Table 10 reveals that except the states of Punjab and Haryana none of the populous states come under the highest 90% categories rather they fall in the lowest <70% categories or in between. In India the general feature is that the proportion of households enjoying the electricity (in terms of connection and supply) is according to the hierarchy of settlements. Therefore, the households in metropolitan cities enjoy maximum than the other smaller towns or villages where proportion goes down to even nil. Scheduled Tribes are comparatively well off in all those States/UTs where they are dominant in number and they have their own government. In other states/UTs where they live as a minority, they fall under the least category. Scheduled Castes who are generally dispersed through out the country than the STs, are better off than STs.

7. CONCLUSION

India being the seventh in area and second largest populated country of the world faces an acute shortage and worst condition of housing. About 18.5 per cent rural households suffer with flood risk of their buildings. In rural India about 37.5 per cent households do not have any

approach road to their buildings. About 6.3 per cent rural households live in slum/bustee areas, when these figures are far below than the truth. In rural areas average size-wise per capita kutcha, semi-pucca and pucca structures are 39.2, 33.9 and 26.3 square metres respectively. About 40.8 per cent rural households live in one room set, whereas 48.14 per cent Scheduled Castes and 51.27 per cent Scheduled Tribes household live in one room set. Only 6.9 per cent households live in four rooms set when only 4.7 per cent and 3.8 per cent households of Scheduled Castes and Scheduled Tribes live in four rooms set respectively. Worst states are Tripura, Maharashtra, West Bengal, Pondicherry and Tamil Nadu where more than 50 per cent rural households live in one room set. In rural India about 3,700,000 houses are urgently required for houseless households who are compelled to huddle with others. The quality of living is yet to be the next priority that about 70 per cent rural houses are either kutcha or semi-pucca, whereas a little less than half of the humanity clogs in one room set.

In rural India only 32.2 per cent urban households have taped water within their premises. Only 11.4 per cent rural houses have toilet facility within the premises. Only about 33.1 per cent of rural households have an electricity connection. On an average only half of the time electric power is available for agriculture, industrial or domestic purposes, which is due to short sighted planning that also on paper only.

Even after half a century of Independence and yet prevailing almost inhuman habitat situation the question is 'can Indian society would ever be able to equate socially or economically with the other advanced societies of the world?' Unless the entire outlook, policies and planning towards human habitat is not changed we can't expect anything good in the existing system. Since geographical, social and economic conditions of the country are unique, therefore, new innovations for viable housing material is inevitable. Housing has to be declared as industry and government's role should be limited to sight and services rather than allowing its greedy authorities to undertake spurious housing construction.

of units located in non-backward areas only 25 per cent of the total consultancy fee is paid by the SISI and the remaining 75 per cent is to be borne by the units themselves.

A scheme has also been approved by the Government of Uttar Pradesh for giving subsidy towards the cost of preparation of project reports by appropriate consultants. The rates of subsidy are 75 per cent for investment subsidy districts, 50 per cent for other backward districts and 25 per cent for non-backward districts.

vi) Exemption from Octroi duty: All the new industrial units and the existing units carrying out a substantial expansion are exempt from payment of octroi duty, toll or terminal tax leviable on plant and machinery and building materials for the period of five years from the date of grant of letter of intent or license or sales tax registration. Certificate for the exemption is given by PICUP, UPFC and UPSIDC in respect of units which are financially assisted by these corporations, and by the Zonal Officers of the Directorate of Industries of other units.

3. The Scheme of Concessional Finance

The scheme of providing concessional finance for setting up industrial units in backward areas was announced in the middle of 1970. An operational area of the scheme includes 246 districts of different States/Union Territories. A list of these districts

which have been selected to qualify for concessional finance is placed at Appendix I. The agencies through which concessional finance was to be provided to industrialists in backward areas consisted of all-India term lending financial institutions, i.e. Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI) and the Industrial Credit and Investment Corporation of India (ICICI).

The concessions which are being provided by the above mentioned financial institutions to industrial entrepreneurs in backward areas under this scheme include a lower rate of interest ($1\frac{1}{2}$ per cent less than the normal rate of interest), a reduced commitment charge of 0.5 per cent and reduction in underwriting and guarantee commission. Moreover, the financial institutions, particularly IDBI accepts a lower promoter's contribution and follows a flexible policy in regard to debt equity ratios and loan amortisation period. Apart from refinancing loans advanced by banks and institutions, in general, the IDBI also provides refinance at a concessional rate to SFCs/Banks in respect of eligible loans to small and medium sized projects in the selected industrially backward districts.

4. Progress of Concessional Finance at National Level

The state-wise distribution of concessional finance sanctioned by IDBI, IFCI and ICICI to selected backward districts under the concessional finance scheme is placed at Appendix II. It is seen

that an amount of Rs.621.47 crores was sanctioned by IDBI, IFCI and ICICI on concessional terms for the selected backward districts during the period 1970-1977. The IDBI is the major agency which distributed considerably a high percentage (72.32%) of this total assistance to backward districts during this period, whereas the percentages of the financial assistance sanctioned by the IFCI and ICICI to its total were only 16.32 and 13.36 respectively.

The analysis of concessional assistance sanctioned to different states by the term lending financial institutions shows that Uttar Pradesh, which is one of the backward states of India, received maximum assistance (Rs.72.09 crores) of the total financial assistance sanctioned, which in terms of percentage comes to 11.60. The other backward states and Union Territories accounted for 37.8 per cent of the total assistance sanctioned by the institutional agencies to selected backward districts.

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CHAPTER III

Industrial Growth in Backward Districts of Uttar Pradesh

1. Industrially backward districts

The 56 districts of Uttar Pradesh were divided into 39 backward 17 non-backward ones by the Planning Commission during the period of the Fourth Five Year Plan. A region-wise break up of the industrially backward districts of the State is shown in the following table:

Table 3.1

Region-wise Break up of Industrially Backward Districts

Sl No.	Region	Industrially backward districts
1.	Eastern	Azamgarh, Bahraich, Ballia, Basti, Faizabad, Ghazipur, Gonda, Jaunpur, Pratapgarh, Sultanpur, Deoria (11)
2.	Hill	Almora, Chamoli, Pauri-Garhwal, Uttar Kashi, Pithoragarh, Tehri-Garhwal (6)
3.	Bundelkhand	Banda, Hamirpur, Jalaun, Jhansi, Lalitpur (5)
4.	Central	Barabanki, Hardoi, Fatehpur, Rae-Bareli, Unnao, Sitapur (6)
5.	Western	Bulandshahr, Farrukhabad, Mainpuri, Mathura, Moradabad, Pilibhit, Shahjahanpur, Etah, Etawah, Rampur, Badaun (11)

Uttar Pradesh is an industrially backward state. The contribution of secondary sector to the state domestic product is approximately 16 per cent only.¹ Most of the districts have industries only as a minor component of their economic activity. In view of this, division of districts of the state into the backward and non-backward ones has little or no meaning in most of the cases. In a way, industrial development in any district or region of the state can well be designated as industrial development of backward areas. Development policies and programmes in the industrial field in the State also seem to have been based implicitly on such a recognition; and, although special concessions and incentives are available for industrial units in backward districts, their impact has not been significant till recently. The reasons being either the programmes of developing industries in these districts were not pursued vigorously or the entrepreneurs did not find incentives and concessions attractive enough to locate their units in the more backward districts.

2. Industrial estates and Industrial Complexes

For better planning of industrial development, it was decided by the State Government to create conditions of industrial development in the identified backward districts by developing infrastructure and other services particularly through establishment

¹ Government of Uttar Pradesh, Draft Sixth Five Year Plan--1980-85, Review, Vol.I, p.2.

of industrial estates and industrial complexes and location of public sector large and medium scale industries, besides the provisions of various kinds of concessions and incentives. We have attempted here a study of the extent of follow-up of these measures in actual practice for creating favourable conditions of industrial development in backward areas. According to the figures in Table 3.2, on an average there is only one industrial estate in each of the backward districts as against the two in non-backward districts.

Table 3.2

Number of Industrial Estates and Industrial Complexes in Backward and Non-backward Districts of Uttar Pradesh (1981)

Sl No.	Particulars	Number of			
		Industrial Estates		Industrial Complexes	
		Total	Per District	Total	Per District
1.	Backward districts	39	1.00	18	0.46
2.	Non-backward districts	31	1.80	21	1.24
Aggregate : U.P.		70	1.25	39	0.70

Note : District-wise locations of industrial estates and industrial complexes in Uttar Pradesh are given in Appendix III.

Source: Directorate of Industries, Kanpur.

Similarly, there is at least one industrial complex in each of the non-backward districts but its availability in backward areas is hardly one against each pair of such districts. Moreover, owing to inadequacy of industrial estates in backward areas, the availability of sheds and plots as depicted in Table 3.3 is also found to be on the lower side. Among the

Table 3.3

Availability of Sheds and Plots in Industrial Estates of Backward and Non-backward Districts

Sl. No.	Particulars	Availability of			
		Sheds		Plots	
Total	Per District	Total	Per District		
1. Backward districts	363	9.31	1306	33.49	.
2. Non-backward districts	619	36.41	1435	84.41	
Aggregate : U.P.	982	17.54	2741	48.95	

Source: Directorate of Industries, Kanpur.

backward districts there are, on an average, nine sheds per district, whereas the corresponding figure for the non-backward districts comes to as high as 36. Similarly, the availability of plots, per district in non-backward areas is also as high as twice of those in backward areas.

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3. Location of Public Sector Large and Medium Scale Industries

So far as the location of public sector large and medium scale industries is concerned, it is disheartening to note that there is not even one unit of such type per district in backward areas, whereas the average of these units per district in non-backward areas is found to be three (Table 3.4).

Table 3.4

Number of Public Sector Large and Medium Scale Industries in Backward and Non-backward Districts of Uttar Pradesh*

Sector	Backward Areas		Non-backward		Combined for U.P.	
	Total	District per unit	Total	District per unit	Total	District per unit
1. Central	2	19.50	19	0.89	21	2.67
2. State	9	4.33	11	1.55	20	2.80
3. Joint	6	6.50	9	1.89	15	3.73
4. Cooperative	11	3.55	12	1.42	23	2.43
Aggregate	28	1.39	51	0.33	79	0.71

Source : Directorate of Industries, Kanpur.

Further, only one-third of the total public sector large and medium scale industries are located in 39 backward districts and the remaining two-third have gone into the 17 non-backward districts of the State. In case of Central sector projects, the

* District-wise public sector large and medium scale industries in Uttar Pradesh are given in Appendix IV.

backward districts are still more deprived as compared to the non-backward districts. There are only two Central sector units in whole of the 39 backward districts of the State, whereas the 17 non-backward districts share the rest 19 Central sector units.

A relatively smaller number of public sector large and medium scale industries in backward areas has obviously implied a smaller share in investment and employment. According to the following table, investment through these industries in backward areas is Rs.4.10 crores per district, whereas the corresponding amount of investment per district in non-backward areas is found to be considerably high, i.e. Rs.36.69 crores. Similarly, the employment

Table 3.5

Investment Through Public Sector Large and Medium Scale Industries in Backward and Non-backward Districts

(Rs.crores)

Sector	Backward Areas		Non-backward		Combined	
	Total	Per district	Total	Per district	Total	Per distt.
1. Central	32.75	0.84	374.45	22.03	407.20	7.27
2. State	69.39	1.78	29.78	1.75	99.17	1.77
3. Joint	17.94	0.46	6.98	0.41	24.92	0.45
4. Cooperative	39.95	1.02	212.57	12.50	252.52	4.51
Aggregate	160.03	4.10	623.78	36.69	783.81	14.00

Source: Directorate of Industries, Kanpur.

generated in backward areas, as a direct result of public sector industries is also comparatively very low. The figures in Table 3.6 indicate that the employment generated through public sector large and medium scale industries in backward areas is about 800 persons per district, whereas the corresponding figure in non-backward districts works out to as high as 4354 persons.

Table 3.6

Employment Through Public Sector Large and Medium Scale Industries in Backward and Non-Backward Districts

(Number)

Sector	Backward Areas		Non-backward		Combined	
	Total	Per District	Total	Per District	Total	Per District
1. Central	10350	265.38	58650	34.50	69000	1232.14
2. State	10250	262.82	4526	266.24	14776	263.86
3. Joint	1809	46.38	1450	85.29	3259	58.20
4. Cooperative	8750	224.36	9400	552.94	18159	324.11
Aggregate	31159	798.95	74026	4354.47	105185	1878.30

Source: Directorate of Industries, Kanpur.

The major part of the difference in investment and employment between the backward and non-backward districts is accounted for by the uneven distribution of the Central sector industrial units

between the two groups of districts. As stated earlier the backward districts have only 2 of the 21 such units located in the State.

On the basis of the foregoing analysis it may, therefore, be concluded that the previous efforts in the direction of creating conditions of industrial development through establishing industrial estates and industrial complexes and locating public sector large and medium scale industries have not been much in favour of backward areas and these facilities are still concentrated in the industrially backward districts. These infrastructural gaps have led to significant variations in growth rates of output and employment between the two types of backward and non-backward areas particularly during the period 1960-70, before the schemes of different types of concessions and incentives became widely effective.

4. Growth Rates of Output and Employment

The growth rates of industrial output in backward and non-backward districts separately for the periods of 1960's and 1970's are shown in the following Table:

Table 3.7

Growth Rates of Industrial Output in Backward and Non-Backward Districts of Uttar Pradesh

	(Percentage)		Growth Rates of Output in 1970 over the base year 1960	1979 over the base year 1970
Backward Districts		1.2		4.1
Non-backward Districts		4.3		6.0
Combined for Uttar Pradesh,		3.6		5.6

Note: The above Table relates to only those large and small scale industrial units of private sector which are registered under the Indian Factories Act.

It is clear from the above table that the growth rate of industrial output in backward districts during 1960's was only 1.2 per cent as against 4.3 per cent in non-backward districts and 3.6 per cent in whole of the State. But during 1970's growth rate in backward areas increased to 4.1 per cent and the corresponding percentages for the non-backward areas and the whole State increased to 6.0 and 5.6, respectively. Thus, the gap in growth rates of industrial output between backward and non-backward areas got reduced to a considerable extent during 1970's as compared to that of 1960's. It seems that the provisions of concessions and incentives in the latter period have, inter alia, been able to play an effective role in bridging this gap. At the same time availability of better infrastructural facilities and concentration of public sector large and medium scale industries continued to favour with non-backward areas with higher growth rates of output.

In respect of employment in these large and small scale private sector industrial units registered under the Indian Factories Act, however, the backward districts recorded relatively better performance during the periods of both 1960's and 1970's as can be seen in Table 3.8. Employment in these industries showed a slightly higher growth in the backward as compared to non-backward districts during 1960's. But during the period 1970-79 it

Table 3.8

Growth Rates of Industrial Employment in Backward and Non-backward Districts of Uttar Pradesh

(Percentage)

Growth Rates of Employment in		
	1970 over the base year 1960	1979 over the base year 1970
Backward Districts	1.9	3.5
Non-backward Districts	1.6	2.2
Combined for Uttar Pradesh	1.7	2.7

Note: The above Table relates to those large and small scale industrial units in private sector which are registered under the Indian Factories Act.

was significantly higher (3.5%) in backward than in the non-backward districts (2.2%). There had thus been an increase in the proportionate shares of employment in backward areas during these years.

The phenomenon of higher growth rate of employment in backward areas can be explained with the help of the existing composition of industrial units and the use of technology. In backward areas, it is observed that the proportion of large industries is very small and majority of the existing industrial enterprises are small using mostly labour intensive technology. On the other hand, there has been a larger concentration of large scale industries in non-backward areas and most of them are based on capital

intensive technology which is relatively less rewarding from the viewpoint of employment generation.

5. Contributions of Backward Areas and Selected Districts to State Totals in Respect of Unit, Employment and Output

The foregoing analysis suggests that during seventies there has been some definite improvement in the performance of industrial sector of backward areas in terms of growth rates of output and employment. Let us, therefore, see as to how far higher growth rates of output and employment have resulted in changes in share of simultaneous increase of the respective categories of districts in the State totals. The share of backward districts in number of industrial units in the State during 1979 is found to have more or less the same as in 1960 and 1970 (Table 3.9).

Table 3.9

Percentage Contribution of Backward and Non-Backward Districts to State Totals in Respect of Units, Employment and Output

(Percentage)

	No. of Industrial Units			Employment			Output		
	1960	1970	1979	1960	1970	1979	1960	1970	1979
Backward Districts	21.06	20.77	20.78	20.73	21.17	22.74	26.07	20.73	18.22
Non-Backward Districts	78.94	79.23	79.22	79.27	78.83	77.26	73.93	79.27	81.78
Aggregate	100	100	100	100	100	100	100	100	100

Note: The above Table relates to those large and small scale industries of private sector which are registered under the Indian Factories Act.

The percentage contribution of backward areas in the total employment in the State showed a gradual increase from 20.73 in 1960 to 21.17 in 1970 and 22.74 during 1979. Growth rate of employment in backward areas, as stated earlier, witnessed an appreciable increase from 1.9 per cent in the period 1960-70 to 3.5 per cent during 1970-79 which led to an increase in their share in total employment.

Turning to industrial output, we observe that although backward areas gained in terms of growth rate of output during seventies in comparison to sixties, their contribution in terms of output to the State total went on declining from 26.07 per cent in 1960 to 20.73 per cent in 1970 and 18.22 per cent during 1979, because the non-backward districts experienced significantly higher rates of growth than the backward ones during both the periods.

Regarding the three districts we have selected for the detailed study, it is discernible from the following table that the two backward districts, Bulandshahr and Moradabad gained both in number of industrial units and employment during sixties as well as seventies, but the contribution in terms of output constantly declined in case of Bulandshahr, while in case of Moradabad, it showed a decline during 1960-70, but a high increase during 1970-79. Besides, the non-backward district, Allahabad had a constant loss in terms of number of industrial units but sizeable gains in terms of both employment and output.

Table 3.10

Percentage Contributions of Bulandshahr, Moradabad and Allahabad to the State Total in Respect of Units, Employment and Output

(Percentage)

	Contribution to the State Total of		
	Bulandshahr	Moradabad	Allahabad
<u>Number of Industrial Units</u>			
1960	1.18	3.00	5.46
1970	1.52	3.51	4.27
1979	1.67	4.36	3.46
<u>Employment</u>			
1960	0.65	1.62	2.90
1970	0.78	2.93	3.82
1979	0.78	5.11	4.18
<u>Output</u>			
1960	0.81	2.34	1.57
1970	0.76	2.14	4.12
1979	0.58	4.40	3.99

Note: The above Table relates to only those large and small scale industries of private sector which are registered under the Indian Factories Act.

The recent period 1974-78 seems to have experienced a trend much more significant in favour of the backward districts. Of the new units established during this period, 28.17 per cent have gone into the backward districts, and of the new employment generated 54.27 per cent have been shared by them. Thus, the number of units in backward districts have grown at an annual rate of 5.60 per cent and employment at 7.65 per cent, against 3.49 and 1.54

per cent growth rates of units and employment respectively in the non-backward districts. Consequently, the backward districts claimed 20.78 per cent of units and 22.74 per cent of industrial employment of the State in 1978. Both the backward districts chosen for our study improved their position : Bulandshahr claimed 1.67 per cent of units and 0.78 per cent of employment, and Moradabad 4.36 per cent of units and 5.11 per cent of employment of the entire State in 1978. The non-backward district, Allahabad, lost relatively in number of units from 3.03 per cent to 2.87 per cent but gained in employment from 3.32 per cent to 4.18 per cent.

Over the entire period 1960-78, Moradabad has experienced a significant growth of industries; Allahabad has followed the State average, but Bulandshahr has lagged behind considerably, though its growth has picked up during the last few years. It is significant to note that the extent of product diversification achieved by the three districts is highly positively related with their respective growth performance. The coefficient of specialisation, which measures the difference in a district's industrial structure from that of State as a whole, was lowest in Moradabad followed by Allahabad and Bulandshahr, and it declined from 0.4719 in 1960 to 0.1393 in 1975 in Moradabad, from 0.4919 in 1960 to 0.3710 in 1975 in Allahabad and from 0.6840 in 1960 to 0.6627 in 1975 in Bulandshahr.¹ During the more recent period, Moradabad and

¹T.S. Papola, Studies on Development of Uttar Pradesh, Giri Institute of Development Studies, 1979, Lucknow, p.186.

Bulandshahr, seem to have diversified their structure further, though that of Allahabad has remained stable. This trend again is in line with the observed positive association of growth rate and diversification. Without going into the causal sequence of the two variables, we can safely take the degree of diversification as a correlate of industrial performance of a district.

6. Role of Concessional Finance in Growth Rates of Unit, Employment and Product Diversification

The immediate questions that arise from the trends described above are : first, what factors have led to the sudden spurt in industrial growth of backward districts in the recent past, what role have institutional finance, particularly concessional finance played in this process? Second, why has the performance of the three districts, in terms of rate of growth of units and employment and diversification of product structure varied so significantly? If initial backwardness of a district presented a handicap, how did Moradabad grow significantly faster than Allahabad? And, if special incentives and subsidies helped greatly in the growth of backward districts, why did Bulandshahr lag behind Moradabad, another backward district, and even the non-backward district Allahabad, where backward area concessions were not available?

So far as the first question is concerned, the role played by financial institutions and particularly concessional finance emerges clearly as a contributing factor in the recent growth of

the backward districts. Although many of the incentives and concessions have been in operation for quite some time, the rate at which financial assistance to units in backward areas increased seems to have got accelerated during the post 1974 period. For example, project assistance financed by IDBI in whole of Uttar Pradesh was of an order of Rs.6 crores to 9 crores per annum during 1970-74, but the average for the period 1974-78 works out to around Rs.40 crores per annum. Of such assistance only two to four per cent went to the backward districts till 1972-73, but after that on an average one-third of assistance has gone to the backward districts.¹ In 1975-76, of all the IDBI project assistance in Uttar Pradesh, 55 per cent went to units in backward districts. The percentage of assistance that went to Bulandshahr, Moradabad and Allahabad was 5.14, 2.50 and 0.56 respectively. Similarly, UPFC assistance has shown an accelerated trend during this period particularly in favour of backward districts; the amount sanctioned increasing from Rs.41 crores in 1974 to over Rs.80 crores in 1978. The number of units assisted and magnitude of assistance in backward districts constituted around 30 per cent in 1974, but the percentage steadily increased over the period and in 1978 stood at around 40 per cent in terms of units and 45 per cent in terms of amount of finance.² Thus, a concerted

¹ Operational Statistics 1977-78, IDBI, p.124.

² Annual Reports of UPFC, 1975 to 1979.

effort seems to have been made by these and other financial institutions to make a thrust in backward districts, and its results have been visible in terms of the faster growth of industries in backward districts during this period.

So far as the differential performance of the three selected districts is concerned two hypotheses suggest themselves. The non-backward district of Allahabad had the advantage of better infrastructure and already developed industrial base. Moradabad though a backward district was also not very much behind Allahabad in terms of these factors, but availability of incentives and concessions led to an acceleration in the process of development of industries in this not-so-backward district. Bulandshahr, on the other hand, had deficient infrastructure and low level and unfavourable structure of industrial development to begin with, and therefore, could not make effective use of incentives and concessional finance. Efforts of financial institutions were also concentrated more in Moradabad than in Bulandshahr. Further, Moradabad is a backward district in the midst of non-backward districts, Bulandshahr, is not so favourably located. The most important factor, however, seems to be the level and structure of industrial development itself. In 1971 Moradabad had 1.63 per cent of its population engaged as workers in non-household manufacturing, the corresponding percentage for Allahabad was 1.20, but only 0.98 for Bulandshahr. Further, the structure of industries in Bulandshahr offers much less potential for linkages than that of

Moradabad and Allahabad. Even the growth in Bulandshahr seems to have been contributed mainly by mineral based (pottery) industry, which has very low linkage potential. Engineering is the other important industry but its growth in the district is rather slow. So is the case of agro-based products, another important industry of the district. Allahabad had a relatively diversified industrial structure to begin with and continued to remain so over the period. Industrial structure of Moradabad was concentrated in one or two industries; but its industrial growth has been contributed mainly by industries with larger linkage potential, such as agro-based products and engineering. Of late, the industrial structure of Bulandshahr has also developed in a more diversified manner, and with higher potential of linkage, and along with relatively better level of industrial development than initially, it is capable of absorbing larger amount of financial assistance and other incentives. The efforts of institutions which generally accompany the growth of absorptive capacity of an area have also been relatively higher in this district recently. As a result, it has shown better performance of late. Now since the two backward districts have almost overcome the disadvantages that they had initially as compared to the developed district, the impact of concessions could be more easily felt and become visible.

CHAPTER IV

Characteristics of Sample Units : Size Structure and Entrepreneurs

With the background of the trends of industrial development in backward and non-backward districts of Uttar Pradesh in general and the three selected districts (i.e. two backward and one non-backward) in particular, and the overall role of institutional finance and concessional finance, we may now turn to the results of our primary investigations regarding the growth of industrial units in the three selected districts. With the main focus on the impact of concessional finance, efforts have, therefore, been made in the present study to analyse rate and pattern of growth, size structure, pattern of entrepreneurial development, backward and forward linkages and the entrepreneurs' perception about industrial development and the role that concessional finance can play in this process. The present chapter is, however, devoted to study and analyse some general characteristics of the industrial units surveyed and their entrepreneurs. It is expected that a description of the characteristics of these units, most of which are now, will also give us some idea of the structure of industry that is emerging as a consequence of recent industrial growth in which the efforts of financial institutions particularly in providing concessional finance, have played a significant role.

A. Size Structure

1. Period of Establishment of Sample Units: It is observed that most of the industrial units covered in the present study are relatively new. As derived from the following table, around 91 per cent units were started during the period 1970-79 and the remaining 9 per cent were established prior to 1970. The period

Table 4.1

District-wise Period of Establishment of Sample Units

Industry	Period of Establishment						Total		
	Prior to 1970			1970-79			Bula-	Mora-	All
	Buland-	Mora-	Alla-	To-	Bula-	Mora-	ha-	bad	Total
	shahr	dabad	habad	tal	nd	da-	shahr	bad	
1	2	3	3	4	5	6	7	8	9
Food Products	-	-	-	-	-	9	-	9	9
Animal and forest based products	-	-	1	1	5	5	5	15	16
Chemical products	-	-	-	-	2	13	8	23	23
Metal Utensils	-	1	-	1	-	18	1	19	20
Engineering	2	1	4	7	7	2	14	23	30
Ceramics	3	-	-	3	27	-	-	27	30
Others	-	-	1	1	2	2	9	13	14
TOTAL	5	2	6	13 (9.15)	43	49	37	129 (90.85)	142 (100)

Note: Figures in parentheses denote percentages to Column 9.
of establishment of sample units is more or less similar in all the three districts.

2. Average Size of Employment

Most of the sample units are small sized. According to the following table, the average employment per unit in the entire sample works out to 21 persons, with a slight variation on the lower side in Moradabad and on the higher side in Bulandshahr and Allahabad. It is also discernible from the table that the

Table 4.2

District-wise Distribution of Units by Average Size of Employment

Industry	Number of Units			Average Size of Employment (Persons)		
	Buland-shahr	Morada-bad	Alla-habad	Buland-shahr	Mora-dabad	All-habad
Food products	-	9.	-	-	19.11	-
Animal and forest based products	5	5	6	59.6	12.80	44.00
Chemical products	2	13	8	10.5	12.85	11.50
Metal utensils	-	19	1	-	19.26	30.00
Engineering	9	3	18	44.11	39.67	26.44
Ceramics	30	-	-	11.66	-	-
Others	2	2	10	12.00	12.00	11.60
Total	48	51	43	22.33	17.88	22.74

Note: Average size of employment for total number of sample unit comes to 20.86 persons.

industry groups of engineering and animal and forest based products have a relatively larger average employment size and chemical products, ceramics and 'others' lower employment size both in the backward and non-backward districts. Overall, the sample is dominated by small sized units : as many as 35 per cent of the total units do not seem to hold the status of 'factory' as they employ less than 10 workers (Table 4.3). Another 37 per cent employ 10-20 workers each. There were only 4 per cent units employing more than

Table 4.3

Industry-wise Distribution of Units by Size of Employment

Industry	Number of Units by size of Employment				Total
	Below 10 persons	10-20 persons	20-50 persons	50 & above persons	
1	2	3	4	5	6
Food products	2	2	5	-	9
Animal and forest based products	3	6	5	2	16
Chemical products	9	10	4	-	23
Metal utensils	6	6	8	-	20
Engineering	11	6	9	4	30
Ceramics	12	18	-	-	30
Others	6	5	3	-	14
Total	49 (34.51)	53 (37.32)	34 (23.94)	6 (4.23)	142 (100.00)

Note: Figures given in parentheses denote percentages to Column 6.

50 workers each. Those employing 20-50 workers constituted approximately 24 per cent of the sample units.

3. Productive Capital Employed

On the basis of the size of total productive capital employed, almost all the units can be placed in the category of small scale industries. Average size of total productive capital employed estimated to Rs.4.80 lakhs; a little higher than 80 per cent of the total units, employed a total productive capital upto Rs.5 lakhs each only (Table 4.4). Among the industries, animal and forest

Table 4.4

Distribution of Sample Units by Size of Productive Capital Employed

Industry	Distribution of Units by Size of total productive capital employed				Average productive capital employed (Rs.lakh)
	0 - 5 lakhs	5 - 10 lakhs	10 lakhs & above	Total Units	
1	2	3	4	5	6
Food products	4	5	-	9	5.04
Animal and forest based products	9	2	5	16	11.41
Chemical products	20	2	1	23	3.26
Metal utensils	20	-	-	20	2.08
Engineering	17	7	6	30	8.24
Ceramics	30	-	-	30	2.11
Others	14	-	-	14	1.88
Total	114 (80.28)	16 (11.27)	12 (8.45)	142 (100.00)	4.80

Note: Figures in parentheses denote percentages to the total units given in Col.5.

based products showed a higher capital base per unit at an average of Rs.11.41 lakhs, particularly due to a few large units of this industry in Bulandshahr. Besides, the units employing total productive capital between Rs.5-10 lakhs and Rs.10 lakhs and above were 11.27 per cent and 8.45 per cent respectively. The units in Bulandshahr had a relatively higher average size of capital at Rs.7.33 lakhs as compared to Rs.3.23 lakhs and Rs.3.84 lakhs in Moradabad and Allahabad respectively. This is attributable to the much larger employment of capital per unit in engineering (Rs.15.20 lakhs) and animal and forest based products (Rs.26.98 lakhs) in Bulandshahr. (Table 4.5)

Table 4.5

District-wise Distribution of Sample Units by Size of Productive Capital Employed

Industry	Distribution of Units by Productive Capital Employed									
	Bulandshahr			Moradabad			Allahabad			
	0-5 lakhs & above	5 lakh & above	Ave- rage	0-5 lakhs & above	5 lakh & above	Ave- rage	0-5 lakhs & above	5 lakhs & above	Ave- rage	Ave- ge
Food products	-	-	-	4	5	5.04	-	-	-	.
Animal and forest based products	1	4	26.98	3	2	4.80	5	1	3.93	
Chemical products	1	1	6.13	13	-	1.93	6	2	4.71	
Metal utensils	-	-	-	19	-	1.99	1	-	3.70	
Engineering	3	6	15.20	-	3	9.31	14	4	4.59	
Ceramics	30	-	2.11	-	-	-	-	-	-	
Others	2	-	2.28	2	-	2.14	10	-	1.75	
Total	37	11	7.33	41	10	3.23	36	7	3.84	

Note: Average productive capital employed for all the sample units works out to Rs.4.80 lakhs

4. Size of Output

Turning to the production size of the selected enterprises, we find that the average production of an unit in our sample turned out of the value of Rs.7.30 lakhs in 1979 (Table 4.6).

Table 4.6

District-wise Distribution of Units by Size of Output

Industry	Units by Size of Output and Average Value of Output												Average value of output (Rs lakh)	
	Bulandshahr				Moradabad				Allahabad					
	A	B	C	D	A	B	C	D	A	B	C	D		
Food products	-	-	-	-	1	4	4	5.02	-	-	-	-	5.02	
Animal and forest based products	1	1	3	30.02	-	2	3	6.16	1	3	2	5.03	13.19	
Chemical products	1	1	-	1.20	1	9	3	6.18	3	3	2	3.12	4.68	
Metal utensils	-	-	-	-	5	8	6	11.97	-	1	-	3.00	11.52	
Engineering	1	2	6	29.96	1	1	1	6.19	4	9	5	4.37	12.23	
Ceramics	11	18	1	2.00	-	-	-	-	-	-	-	-	2.00	
Others	.	-	1	1.76	1	1	-	1.77	3	5	2	2.55	2.33	
Total	14	23	10	10.29	9	25	17	7.64	11	21	11	3.57	7.30	

Note: A = Rs. below 1 lakh

B = Rs.1-5 lakhs

C = Rs.5 lakhs and above

D = Average value of output in Rs.lakh.

Here again, Bulandshahr showed a high average of Rs.10.29 lakhs as compared to Rs.7.64 lakhs in Moradabad and Rs.3.57 lakhs in Allahabad. The above table also shows that animal and forest based products in Bulandshahr and metal utensils in Moradabad had

a higher average size of production, but ceramics and chemical products, on the other hand, produced on an average relatively smaller size of output.

The industry-wise distribution of all units by size of output is shown in Table 4.7. It is observed that around 25 per cent of the

Table 4.7

Industry-wise Distribution of Units by Size of Output During 1979

Industry	Distribution of Units by Size of Output				Average Value of Output (Rs lakh)
	Below 1 lakh	1 - 5 lakhs	Above 5 lakhs	Total	
Food products	1	4	4	9	5.02
Animal and forest based products	2	6	8	16	13.19
Chemical products	5	13	5	23	4.68
Metal utensils	5	9	6	20	11.52
Engineering	6	12	12	30	12.23
Ceramics	11	18	1	30	2.00
Others	5	7	2	14	2.33
Total	35 (24.65)	69 (48.59)	38 (26.76)	142 (100.00)	7.30

Note : Figures in parentheses denote percentages to total.

entire sample produced output worth Rs.1 lakh or less and average size of production for another 48 per cent units ranged from Rs.1 lakh to Rs.5 lakhs. The remaining 27 per cent of the total units

had an output per unit worth over Rs.5 lakhs. Besides, the animal and forest based products, metal utensils and engineering dominated the average size of production of other industry groups in the sample.

B. Entrepreneurial Status

1. Sample Units by Origin of Entrepreneurs: So far as entrepreneurial development is concerned, it is encouraging to note that an overwhelming majority of entrepreneurs have their local origin. According to the following Table, in the overall sample about 71 per cent entrepreneurs belonged to the districts of location of their units. The percentages of such entrepreneurs in Bulandshahr, Moradabad and Allahabad were 71, 80 and 60 respectively. The

Table 4.8

District-wise Distribution of Sample Units by Origin of Entrepreneurs

Industry	Bulandshahr		Moradabad		Allahabad		Combined	
	Local	Non-local	Local	Non-local	Local	Non-local	Local	Non-local
1	2	3	4	5	6	7	8	9
Food products	-	-	9	-	-	-	9	-
Animal and forest based products	1	4	3	2	4	2	8	8
Chemical products	1	1	8	5	7	1	16	7
Metal utensils	-	-	18	1	-	1	18	2
Engineering	6	3	1	2	9	9	16	14
Ceramics	24	6	-	-	-	-	24	6
Others	2	--	2	--	6	4	10	4
Total	34	14	41	10	26	17	101	41
	(70.83)	(29.17)	(80.39)	(19.61)	(60.47)	(39.53)	(71.13)	(28.87)

Note: Figures in parentheses denote percentages to the total units in the selected districts upto Col.7 and those in Cols.8 and 9 are based on the entire sample.

entrepreneurs in food products, ceramics and metal utensils were from the districts of location of their units in more than 80 per cent cases. Since most of the units are small sized and entrepreneurs are of local origin it is not surprising to note that there are no absentee entrepreneurs in the sample units. In all units, entrepreneurs worked in the units as Managing Directors, Managers, Partners, or in some other capacity.

2. Entrepreneurs' Age

Average age of the entrepreneurs in sample units turned out to be around 37 years (Table 4.9). Entrepreneurs in most industries have

Table 4.9

District-wise Average Ages of the Entrepreneurs in Sample Units

Industry	Average Ages of Entrepreneurs			
	Bulandshahr	Moradabad	Allahabad	Combined
Food products	-	36.00 (9)	-	36.00 (9)
Animal and forest based products	33.33 (5)	30.00 (5)	41.50 (6)	35.35 (16)
Chemical products	39.50 (2)	34.62 (13)	33.50 (8)	34.65 (23)
Metal utensils	-	37.21 (19)	34.00 (1)	37.05 (20)
Engineering	42.33 (9)	51.33 (3)	37.50 (18)	40.33 (30)
Ceramics	36.47 (30)	-	-	36.47 (30)
Others	37.50 (2)	35.00 (2)	36.70 (10)	36.57 (14)
Total	37.40 (48)	36.37 (51)	37.05 (43)	36.93 (142)

Note: Figures in parentheses denote number of industrial units.

an average age below the average. But those in engineering group of industry, are on an average 40 years old in Bulandshahr and 52 years old in Moradabad though in Allahabad entrepreneurs' average age in this industry group is around 37 years.

3. Entrepreneurs' Qualifications

Around two-thirds of the entrepreneurs are either graduates or technical diploma holders. Only ten per cent were non-matriculates or illiterates, most of them were in ceramics (mainly in pottery in Khurja). Entrepreneurs in animal and forest based products, chemicals and engineering were most educated, with over three-fourths of them having a university degree or diploma. All these industries, along with metal utensils also had a good percentage of entrepreneurs with technical qualifications. Ceramics had the least educated entrepreneurs, only 20 per cent of them were graduates and 13 per cent had a technical diploma, while one third were non-matriculates and equal number matriculates. (Table 4.10)

4. Previous Activity of Entrepreneurs

The largest percentage of entrepreneurs came to the present enterprise from trading background: 39 per cent of the entrepreneurs were engaged in trading before coming to their present enterprise (Table 4.11). Another 18 per cent engaged in industry, and 11 per cent shifted to industrial entrepreneurship from a salaried job. A small number, around 4 per cent, were agriculturists and a similar number were working as technocrats in industry, before their present venture.

Table 4.10

Distribution of Sample Units by Educational Qualification of Entrepreneurs

Educational Qualification	Food products	Animal and forest-based products	Chemical products	Metal utensils	Engineering	Ceramics	Others	TOTAL
Illiterates	-	-	-	1	1	3	-	5 (3.52)
Primary	-	-	-	-	-	4	-	4 (2.82)
Junior High School	-	-	-	-	2	3	-	5 (3.52)
High School/Intermediate	2	2	6	6	5	10	4	35 (24.65)
Graduate	6	10	12	9	12	6	5	60 (42.25)
Technical Degree	1	4	5	4	5	-	3	22 (15.49)
Technical Diploma	-	-	-	-	5	4	2	11 (7.75)
Total	9	16	23	20	30	30	14	142 (100.00)

Note: Figures given in parentheses denote percentages to total.

Table 4.11

Distribution of Sample Units by Previous Activity of Entrepreneurs

Previous Activity of Entrepreneurs	Food products	Animal and Forest-based products	Chemical products	Metal utensils	Engineering	Ceramics	Others	TOTAL
Industry	3	3	1	6	4	6	3	26 (18.31)
Trading	1	3	9	8	17	10	7	55 (38.73)
Farming	1	-	1	-	-	4	-	6 (4.23)
Service	-	3	4	-	3	3	2	15 (10.56)
Technocrat in Industry	-	1	1	-	3	-	-	5 (3.52)
Profession	-	2	-	-	-	-	-	2 (1.41)
Student/Unemployed	4	3	7	6	3	6	2	31 (21.83)
Army officer	-	1	-	-	-	1	-	2 (1.41)
Total	9	16	23	20	30	30	14	142 (100.00)

Note: Figures in parentheses denote percentages to total.

About 22 per cent of the entrepreneurs, came directly to their present venture after completing their studies and/or undergoing some period of unemployment. Around 78 per cent of them were engaged in some activity before they ventured into the present enterprise. Was that occupation the same of occupation of their families? Our data show that this was not always the case: For over four-fifths of entrepreneurs the industrial enterprise meant a shift from traditional family occupation; and a similar proportion also made a shift from their own previous activity. Such shifts were most frequent in the case of Bulandshahr entrepreneurs. Thus it looks that the overall development of industries in all districts particularly in Bulandshahr has encouraged the entry of a large number of entrepreneurs in industry who did not pursue industry either as a family occupation or their own occupation prior to starting the present enterprise. Even the entrepreneurs who were engaged in industry either as family business or as their own previous activity did not necessarily go in the same line of production. It may also be noted that only around 10 per cent of the entrepreneurs chose the present production line because they had hereditary knowledge of the product line, but 16 per cent chose it because of their technical competence due or their experience of handling the product line. One-fifth of the entrepreneurs also assumed charge of their present enterprise after having worked in the same unit for some time.

CHAPTER V

Growth of Industries and Significance of Concessional Finance

1. Growth Rates of Output and Employment

A rapid growth of the number of units in recent years is well suggested by the period of establishment of the sample units stated in the previous chapter. The sample units have also shown a relatively high rate of growth in their output during 1975-79;

Table 5.1

District-wise Distribution of Sample Units by Average Growth of Output During 1975-79

(Percentage)

Industry Group	Average Growth Rate of Output			Combi-ned
	Buland-shahr	Morada-bad	Allaha-bad	
<u>Animal and forest based products</u>				
- with concessional finance	110.49	44.59	-	102.70
- without concessional finance	-	-	-14.68	-14.68
<u>Chemical products</u>				
- with concessional finance	4.17	69.74	-	69.74
- without concessional finance	-	47.4	41.67	45.42
<u>Metal Utensils</u>				
- with concessional finance	-	37.92	-	37.92
- without concessional finance	-	15.67	-	15.67
<u>Engineering</u> - with concessional finance				
- with concessional finance	14.25	6.23	86.77	50.38
- without concessional finance	4.38	-	13.08	9.86
<u>Ceramics</u> - with concessional finance				
- with concessional finance	46.48	-	-	46.48
- without concessional finance	21.02	-	-	21.02
<u>Others</u> - with concessional finance				
- with concessional finance	-	-	42.91	42.91
Total	22.54	26.51	16.28	22.72
Base: Number of Units	31	19	12	62

Note: Average growth rate of output relates to 62 units out of the entire sample of 142.

particularly those located in the backward districts of Bulandshahr and Moradabad. Against an overall growth rate of output of 22.72 per cent in the entire sample, Moradabad units have registered growth rate of output of 26.51 per cent and those in Bulandshahr of 22.54 per cent as compared to 16.28 per cent in Allahabad units (Table 5.1). It may also be noted that a significant number of units in Allahabad and Moradabad showed a stagnation or decline in their output; such units forming one-fourth of the sample in the former and one-sixth in the latter district. On the other hand, no unit in Bulandshahr experienced a negative growth and most units grew at a rate between 10 and 50 per cent. The industries which have grown fastest are animal and forest based products and ceramics in Bulandshahr, chemicals in Moradabad and Allahabad and engineering in Allahabad.

The rate of growth of employment has, however, not kept pace with the growth of output. According to the following table, the

Table 5.2

District-wise Distribution of Sample Units by Average Growth Rate of Employment During 1975-79

(Percentage)

Industry group	Average Growth of employment Combined		
	Bulandshahr	Moradabad	Allahabad
Food products	-	-	-
Animal and forest based products	0.25	4.17	4.00
Chemical products	-	6.67	2.08
Metal utensils	-	9.50	-
Engineering	2.89	4.93	29.14
Ceramics	5.00	-	-
Others	-	-	8.64
Total	2.06	7.64	14.94
Base: No. of units	30	18	19

Note: Average growth of employment relates to 67 units out of 142.

average growth rate of employment in the sample units has been of an order of about 7 per cent. Around 20 per cent of the units had zero or negative rate of growth of employment and hardly any unit a rate higher than 30 per cent. But the sample units in Allahabad have experienced a growth in employment of around 15 per cent which is only marginally lower than their growth of output at 16 per cent. Moradabad and Bulandshahr units, on the other hand, have increased their employment at the rates of only 7.64 and 2.06 per cent respectively. The major contribution in employment growth was made by engineering group of industries in Allahabad, by metal utensils in Moradabad and by ceramics in Bulandshahr.

2. Borrowing for Fixed Capital

Let us now turn to the contribution made by institutional finance and particularly concessional finance in the growth of the sample units. In the first instance, let us see as to what percentage of the capital of these units is financed on the basis of institutional finance. According to Table 5.3, all but 24 of the sample units availed of finance from financial institutions and banks for fixed capital. Those availing finance for fixed capital constituted 75 per cent of units in Bulandshahr, 90 per cent in Moradabad and 84 per cent in Allahabad and 83 per cent in the entire sample. On an average, 57 per cent of the fixed capital of the borrowing units is financed through borrowings from banks and financial institutions. The extent of borrowing is higher at 59 and 58 per cent in Allahabad

Table 5.3

District-wise Distribution of Sample Units by Percentage of Fixed Capital Borrowed to Total Fixed Capital

Industry	Bulandshahr			Moradabad			Allahabad			Combined		
	A	B	C	A	B	C	A	B	C	A	B	C
Food products	-	-	-	-	9	59.72	-	-	-	0	9	59.92
Animal and forest based products	-	5	55.43	-	5	86.21	1	5	73.38	1	15	60.50
Chemical products	-	2	71.02	-	13	72.39	-	8	72.88	0	23	72.34
Metal utensils	-	-	-	5	14	45.02	1	-	-	6	14	43.02
Engineering	2	7	69.84	-	3	24.11	3	15	49.61	5	25	56.23
Ceramics	9	21	36.20	-	-	-	-	-	-	9	21	36.20
Others	1	1	59.11	-	2	36.31	2	8	57.20	3	11	55.00
Total	12	36	58.28	5	46	53.16	7	36	59.06	24	118	57.03
	(75.00)			(90.20)			(83.72)			(83.10)		
Base: Sample units		48			51			43			142	

Note: 'A' in the above table stands for those units which did not borrow for fixed capital and 'B' for those which borrowed loans for fixed capital. 'C' denotes average percentage of fixed capital borrowed to total fixed capital employed. Figures given in parentheses denote percentages to the base.

and Bulandshahr and lower at 53 per cent in Moradabad. This is primarily because metal utensils, a major group in Moradabad, has relatively older units which had financed their fixed capital out of their own funds. Industries in which the percentage of term borrowing to value of fixed capital is relatively high are :

animal and forest based products, chemicals, food products and engineering. Units in ceramics have one of the lowest extent of borrowing for this purpose; only 36 per cent of the value of fixed assets is borrowed. In spite of that the extent of borrowing for fixed capital is high in Bulandshahr because units in chemicals and engineering there have borrowed to the extent of 70 per cent or more of the value of their fixed capital.

3. Borrowing for Working Capital

The pattern of borrowing for working capital also follows similar trend. According to Table 5.4, all but 37 units availed of finance from financial institutions and banks for working capital. Percentages of those borrowing for working capital in Bulandshahr, Moradabad and Allahabad were 73, 68, and 81 respectively against 74 per cent of the entire sample. On an average, 55 per cent of the working capital requirements of the sample units are met by borrowings. The percentage is quite high at about 68 in Bulandshahr and rather low at 45 and 44 per cent in Allahabad and Moradabad respectively. Again, ceramics and metal utensils borrow to a smaller extent of their working capital; and animal and forest based products, chemical products and engineering to a much larger extent. Even in these groups, Bulandshahr units have tendency of meeting relatively larger part of their working capital requirements by borrowings.

Table 5.4

District-wise Distribution of Sample Units by Percentage of Working Capital Borrowed to Total Working Capital

Industry	Bulandshahr			Moradabad			Allahabad			Combined		
	A	B	C	A	B	C	A	B	C	A	B	C
Food products	-	-	-	1	8	46.83	-	-	-	1	8	46.83
Animal and forest based products	1	4	97.19	-	5	64.10	-	5	71.90	1	14	87.77
Chemical products	-	2	59.46	8	5	36.75	1	7	60.00	9	14	53.92
Metal utensils	-	-	-	6	12	28.83	-	1	18.52	6	13	27.35
Engineering	2	7	70.63	-	3	41.04	2	16	35.83	4	26	53.15
Ceramics	8	22	36.89	-	-	-	-	-	-	8	22	36.63
Others	2	-	-	1	1	80.00	5	5	49.37	8	6	43.73
Total	13	35	67.98 (72.93)	16	34	43.94 (68.00)	8	34	44.90 (80.95)	37	103	54.80 (73.57)
Base: No.of units	48			50			42			140		

Note: 'A' stands for those units which did not borrow loans and 'B' for those which borrowed it. 'C' denotes average percentage of working capital borrowed to total working capital. The figures given in parentheses denote percentages to the base.

The above table relates to 140 units. The data pertaining to one unit of metal utensils in Moradabad and one unit of animal and forest based products in Allahabad could not be obtained.

On the whole, the availability of finance seems to have made a significant impact to the extent that major part of the fixed as well as working capital requirements have been met from borrowed funds. It is, however, difficult to say that this impact has been felt more in the backward than in the non-backward district. District-wise differences by and large, in accordance with the pattern of industries. Newer industries have availed of loans to larger extent than the old ones. To the extent the new industries are also the ones with greater potential for backward and forward linkages, one could say that the pattern of lending has been conducive to the growth of areas where industrial units are located. It may, however, be noted that the non-availability of finance as such was mentioned as a constraint in expansion of units by only a small number of units in Bulandshahr (7%) and Moradabad (4%) whereas one-third units in Allahabad considered it as such. Thus, it looks that the institutions have made a much larger progress in meeting financial requirements of industrial units in backward areas than the non-backward ones. And due to various reasons such as difficulty of getting power and raw materials, the industries in the non-backward districts have been growing at a slower rate than in the backward districts, and as a result, the latter are developing higher absorptive capacity for institutional finance. Whether the institutions are following this lead given by differential performance of industries in the two groups of industries or they themselves are also responsible for this phenomenon is a matter needing further investigation. It, however, seems that the institutions

have contributed both in initiating a higher growth in backward districts and also in supplying adequate finance as the absorptive capacity of the backward districts increased. This seems to be particularly true in the case of Bulandshahr.

4. Role of Concessional Finance in Start/Expansion of Units

Financial assistance at concessional terms, as distinct from availability of finance as such, has been considered as an important factor in the start up and/or expansion of majority of sample units. According to Table 5.5, the percentage of entrepreneurs who thought that the concessional finance is of some significance was the highest (79%) in the non-backward district of Allahabad, as compared to backward districts of Moradabad (69%) and Bulandshahr (52%).

Table 5.5

District-wise Distribution of Sample Units Considering Concessional Finance as Important for Start or Expansion of Units

Industry group	Units considering concessional finance as important for start or expansion of units			
	Bulandshahr	Morada- bad	Allaha- bad	Combi- ned
Food products	-	9	-	9
Animal and forest based products	5	4	5	14
Chemical products	1	10	6	17
Metal utensils	-	10	1	11
Engineering	6	2	13	21
Ceramics	12	-	-	12
Others	1	-	9	10
Total	25	35	34	94
	(52.1)	(68.6)	(79.1)	(66.2)
Base : Sample Units	48	51	43	142

Note: Figures in parentheses denote percentages to the base.

The concessions, thus, seem to have greater popularity in the non-backward than in the backward ones although their magnitude is certainly larger in the latter. Part of it also reflects industry-wise differences in the popularity of concessional finance. Balandshahr and Moradabad sample is dominated by ceramics and metal utensils respectively, both these traditional industries seem less enchanted by concessional finance which is found most popular in chemicals, animal and forest based products and food products.

5. Availment of Concessional Finance by Sample Units

In terms of actual availment, however, the concessional finance has played greater role in the two backward districts than in Allahabad. As shown below, around 52 per cent of the units in our sample availed of concessional finance. The proportion of units availing

Table 5.6

District-wise Distribution of Sample Units by Availment of Concessional Finance

Industry	Buland-shahr	Mora-dabad	Alla-habab	Combined
Food products	-	6	-	6
Animal and forest based products	5	4	3	12
Chemical products	2	8	3	13
Metal utensils	-	12	-	12
Engineering	5	3	5	13
Ceramics	14	-	-	14
Others	1	-	3	4
Total	27	33	14	74
	(56.3)	(64.7)	(32.6)	(52.1)
Base: Sample Units	48	51	43	142

Note: Figures in parentheses denote percentages to the base.

such finance was 56 per cent in Bulandshahr, 65 per cent in Moradabad and 33 per cent in Allahabad. The major part of the concessional finance is available as term loans for fixed capital and carries concession in rate of interest in backward districts; though with refinance from IDBI the interest rates even in the non-backward districts are lower than the usual rates charged by commercial banks. Thus, an element of concession is available even in the non-backward districts. We found earlier that 57 per cent of the fixed capital requirements of sample units are met from borrowed funds; of this, 44.48 per cent was borrowed on the basis of concessional finance. The percentages of concessional finance availed to the total fixed capital for the three selected districts are given in Table 5.7.

Table 5.7

District-wise Distribution of Units by Percentage of Concessional Finance Availed to Total Fixed Capital

Industry Group	Bulandshahr			Moradabad			Allahabad			Combined		
	Units avail- ing C.F.	% of c.f. availed to total fixed capital	Units avail- ing C.F.	Units avail- ing C.F.	% of c.f. availed to total fixed capital	Units avail- ing C.F.	% of c.f. availed to total fixed capital	Units avail- ing C.F.	% of c.f. availed to total fixed capital	Units avail- ing C.F.	% of c.f. availed to total fixed capital	Units avail- ing C.F.
Food products	-	-	6	84.41	-	-	-	-	-	6	84.41	
Animal and forest based products	5	50.84	4	94.12	3	52.47	12	52.47	12	56.03		
Chemical products	2	41.25	8	77.55	3	38.78	13	38.78	13	51.11		
Metal utensils	-	-	12	59.23	-	-	-	-	12	59.23		
Engineering	5	17.11	3	34.63	5	48.74	13	48.74	13	22.67		
Ceramics	14	53.81	-	-	-	-	-	-	14	53.81		
Others	1	76.06	-	-	3	23.68	4	23.68	4	33.90		
Total	27	37.82	33	65.65	14	40.44	74	40.44	74	44.48		

The concessional finance constituted 85 per cent of borrowed finance for fixed capital in Bulandshahr. The comparable figure for Moradabad is 91 per cent and for Allahabad 68 per cent (Table 5.8). Among industries, food products, metal utensils and

Table 5.8

Percentage of Borrowings to Total Fixed Capital

District	% of term borrowing to total fixed capital	% of borrowing on concessional terms to total fixed capital
Bulandshahr	58.28	47.82
Moradabad	53.16	48.65
Allahabad	59.06	40.44
Total	57.03	44.48

animal and forest based products depended on concessional finance much more than units in engineering, ceramics and chemicals for meeting their fixed capital requirements. Overall, it is significant to note that around one-half of the fixed capital requirements of sample units in the backward districts were met on the basis of concessional finance, the proportion being 40 per cent in case of units in Allahabad which, of course, carried smaller rate of concession than in the backward districts.

It is evident from figures in Table 5.1, that within an industry, units availing concessional finance have grown much faster in

terms of output than those not availing it. In ceramics in Bulandshahr, units availing concessional finance experienced a growth rate of 46.48 per cent as against 21.02 per cent of those without it. In some other industries growth rates of those with concessional finance or those without it respectively were as follows: metal utensils in Moradabad 37.32 per cent and 15.67 per cent; chemical products in Moradabad 69.74 per cent and 47.41 per cent; and engineering in Allahabad 86.77 per cent and 13.08 per cent and in Bulandshahr 14.25 per cent and 4.38 per cent.

It may, thus, be concluded that efforts made by financial institutions, particularly, through operation of the scheme of concessional finance, have contributed to the acceleration of industrial growth, particularly in the backward districts. Sizeable part of the financial requirements of new and expanding units have been met through institutional finance and most of the units particularly in the backward districts have also utilised the facility of concessional finance for this purpose. The units availing concessional finance have also shown a much better performance in terms of growth of output than the ones which have not availed of this facility.

There are two features revealed by our investigation which may be considered as rather unfavourable characteristics of the pattern of availment of concessional finance. On an average, those availing of concessional finance were relatively larger sized than

those not using it; the average size of output of the former group was Rs.10.45 lakhs as against Rs.3.76 lakhs of the latter. Such difference between two groups was much more marked in Bulandshahr with those availing concessional finance turning output of Rs.15.31 lakhs on an average; as against Rs.2.79 lakhs of those not availing it. Does the accessibility of concessional finance have a distinct bias in favour of large sized units? To a certain extent, it is also a reflection of differential popularity of this instrument with different industry groups and their size structure. Animal and forest based products are relatively large sized and ceramics units small sized in Bulandshahr, and the concessional finance has been more popular with the former than with the latter. Further, from a scrutiny of proportion of units availing of concessional finance in different size groups of output it is seen that the very small and relatively large units are better able to get the benefits of concessional finance than those in the medium size output group, as can be seen from Table 5.9. This tendency has been particularly marked in Bulandshahr and Moradabad than in Allahabad.

Table 5.9
Percentage of Units Availing Concessional Finance

District	Size Groups of Output in Rs.lakhs					
	< 1.00 2.00	1.00- 5.00	2.00- 10.00	5.00- 15.00	10.00- 15+	
Bulandshahr	60	60	25	33	66	100
Moradabad	77	55	60	77	75	50
Allahabad	54	24	30	0	-	-
ALL	63	45	40	36	70	77

Another disconcerting feature of the pattern of growth of industrial units in these districts during the last few years and therefore of the contribution of concessional finance, is a much slower growth of employment than of output, particularly in the two backward districts which have availed of concessional finance on a relatively larger scale. A hypothesis which has sometimes been advanced in this connection suggests that the easy availability of finance particularly for acquisition of fixed capital leads to substitution of labour by capital and thereby reduces the employment potential and overall impact of industries in the development of an area. To a large extent, the facility of concessional finance has gone to the industries which have not shown significant employment potential. Animal and forest based products, chemicals and food products are such examples. On the other hand, engineering, metal products and ceramics which have contributed to employment growth have not been important beneficiaries of concessional finance. It, however, needs to be borne in mind that it is not merely the direct employment creation but also the indirect effect through generation of activities in the area through which the concessional finance can make its contribution to development, and different industries have varying potentials for this purpose.

CHAPTER VI

Impact of Concessional Finance Through Linkages

The most obvious and direct way in which industrial units produce its impact on the economy of the area is, of course, in terms of output and employment; whatever they produce adds to the domestic product of the district and almost all units also employ local workers if not to the full at least to a major extent. In addition, the location of industries also induces development of ancillary activities and services directly or indirectly connected with industries or people working in them. Sometimes industrial units help in the establishment of other units by supplying trained workers, entrepreneurs or technical and financial help. The other direct ways through which such an impact is created are through backward linkages by using local raw material and semi-processed products; and through forward linkages by supplying such materials and products for production and consumption locally.

1. Backward Linkages

Only one-fourth of the units in our sample considered their impact on local economy significant through the use of local raw material. Food products, and animal and forest based products and ceramics are found to have the strongest backward linkages through the purchase of local raw material; and chemicals and engineering the weakest. Among the three districts, Allahabad units seem to have the lowest backward linkages through the use of local raw material and Moradabad the strongest. As shown in Table 6.1, about 73 per cent of the

Table 6.1

District-wise Distribution of Units by Sources of
Raw Material

Industry Group	Bulandshahr			Moradabad			Allahabad			Combined		
	A	B	C	A	B	C	A	B	C	A	B	C
<u>Food products</u>												
i. wholly	-	-	-	6	-	-	-	-	-	6	-	-
ii. partly	-	-	-	2	4	-	-	-	-	2	4	-
<u>Animal and forest based products</u>												
i. wholly	-	1	2	-	-	-	2	-	-	2	1	2
ii. partly	1	2	2	4	1	5	2	2	4	7	5	11
<u>Chemical products</u>												
i. wholly	-	-	2	2	1	2	-	2	1	2	3	5
ii. partly	-	-	-	3	3	3	2	5	3	5	8	6
<u>Metal utensils</u>												
i. wholly	-	-	-	11	-	-	1	-	-	12	-	-
ii. partly	-	-	-	8	4	8	-	-	-	8	4	8
<u>Engineering</u>												
i. wholly	1	3	1	1	-	-	11	1	1	13	4	2
ii. partly	3	4	1	-	2	2	1	3	4	4	9	7
<u>Ceramics</u>												
i. wholly	6	-	4	-	-	-	-	-	-	6	-	4
ii. partly	20	-	20	-	-	-	-	-	-	20	1	20
<u>Others</u>												
i. wholly	-	2	-	2	-	-	1	-	5	3	2	5
ii. partly	-	-	-	-	-	-	4	4	-	4	4	-
Total: i. wholly	7	6	9	22	1	2	15	3	7	44	10	18
ii. partly	24	7	23	17	14	18	9	14	11	50	35	52
Base: No.of units responded				48			46		35			129

Note: (A) stands for 'local', (B) for 'within the State' and (C) for 'Outside the State'.

units were found using local raw material, about 34 per cent having their requirements met locally and about 39 per cent using both local raw material as well as imported from outside the district. Units using local material constitute about 85 per cent of the sample in Moradabad, about 65 per cent in Bulandshahr and about 69 per cent in Allahabad. Most of the industries not using local raw material report that it is not locally produced or available. That it is of poor quality, high priced or available at unfavourable terms was stated as reasons for not using local raw material by a small number of units mostly in Allahabad.

To what extent the linkages on the basis of purchase of raw material and intermediate products are systematic and definite can be seen from the existence of regular arrangements of purchase of these items by the sample units from other local units. One-third of the sample units were found to have such arrangements with over two units each. But most of the supplier units were located outside the district, only one-third of them were located in the district. Arrangements for regular supply of materials and intermediate products were most frequent in case of engineering units and those in ceramics; in case of the latter, most supplier units were local. Accordingly, one finds that most units in Bulandshahr had supply arrangement with other units and a large percentage of them were local; in Moradabad only one-tenth of the units had such arrangements, mostly with non-local units. The systematic backward linkages on the basis of regular arrangements for supply of raw materials and intermediate products were thus found rather weak, except in Bulandshahr. That does not, however, rule out such

linkages on the basis of random, rather than regular, pre-arranged, purchases made by industrial units from other local units. Regular arrangements, however, help systematic and sustained growth of supplier units, while in case of random purchases, the latter may experience fluctuations and instability in their operations.

Backward linkages through the purchase of machinery are less likely in an industrially backward area than those through use of local material. Yet on the basis of somewhat limited information that we could gather, it is found that such linkages are not altogether absent. In Bulandshahr about 80 per cent units had at least part of their machinery locally manufactured; the percentage of such units was about 35 in Moradabad and about 30 in Allahabad and about 48 per cent in the entire sample (Table 6.2). Overall, machinery

Table 6.2

District-wise Distribution of Units Using Locally Manufactured M/c

Industry	Bulandshahr			Moradabad			Allahabad			Combined		
	A	B	C	A	B	C	A	B	C	A	B	C
Food products	-	2	-	4	5	17.02	-	-	-	4	5	17.02
Animal and forest based products	3	2	10.14	5	-	-	5	1	0.57	13	3	6.81
Chemical products	-	2	4.01	7	4	5.19	4	4	49.72	11	10	26.14
Metal utensils	-	-	-	11	8	4.21	1	-	-	12	8	3.99
Engineering	6	-	-	3	-	-	15	3	11.64	24	3	2.80
Ceramics	-	29	71.71	-	-	-	-	-	-	-	29	71.72
Others	-	2	25.85	2	-	-	5	5	8.64	7	7	9.21
Total	9	35	36.51	32	17	6.76	30	13	17.58	71	65	13.39
				(79.95)	(34.90)		(30.23)			(47.79)		

Base: No. of units responded 44 49 43 136

Note: A = units not using locally manufactured machinery; B = units using it; C = percentage of value of locally manufactured machinery used to total value of machinery. Figures in parentheses denote percentages to the base.

worth 36.51 per cent of total equipment with the sample units was of local manufacture in Bulandshahr. In Allahabad, the percentage is 17.58. In Moradabad, however, it is low at 6.76 per cent. In the ceramics units in Bulandshahr as much as 71.72 per cent of machinery is reported to be of local manufacture; and in Allahabad 49.72 per cent of the machinery used by chemical units is also locally made. In Moradabad the only industry with significant share of locally manufactured ^{machinery} (17.02%) is food products. It looks that once there is a sizeable number of units in a product line, there is a good likelihood of units manufacturing the relevant machinery also coming up in the area; the cases of food products in Moradabad, chemicals in Allahabad and ceramics in Bulandshahr point to this possibility.

2. Forward Linkages

In the matter of sale of products, local demand is mentioned by most entrepreneurs as a factor in their location decision. In practice also, about seventy eight per cent sell their products locally, about 35 per cent fully and about 43 per cent partly; but only 16 per cent considered their product of importance for local consumption. According to Table 6.3, about 22 per cent of the units sell their entire product outside. Those selling entirely locally make a little less than one-half in Allahabad but only one-sixth in Bulandshahr. Among industries food products units either sell outside or combine local and outside sale, no unit selling its entire product locally. In animal and forest based products, chemicals and

Table 6.3

District-wise Distribution of Sample Units by Place
of Sale of Products

(No. of units)

Industry Group	Bulandshahr			Moradabad			Allahabad			Combined					
	L	NL	L+NL	L	NL	L+	NL	L	NL	L+	NL	L	NL	L+	NL
Food products	-	-	-	-	3	4	-	-	-	-	-	3	4		
Animal and forest based products	1	3	1	4	1	-	2	-	4	7	4	4	5		
Chemical products	1	-	1	6	2	1	3	2	3	10	4	4	5		
Metal utensils	-	-	-	5	9	3	-	-	1	5	9	4	4		
Engineering	-	5	4	1	-	2	9	-	9	10	5	5	15		
Ceramics	5	5	20	-	-	-	-	-	-	5	5	5	20		
Others	1	-	1	2	-	-	7	-	3	10	-	-	4		
Total	8	13	27	18	15	10	21	2	20	47	30	30	57		

L = Local; NL = Non-local; L+NL = Local + Non-local

Note: In Moradabad, 2 units of food products, 4 units of chemical products and 2 units of metal utensils could not supply the information regarding the place of sale of their products.

engineering, local sales make a significant proportion; but the reverse is true in case of metal utensils. If we take the same product groups in different districts, we find a difference in the pattern of sale. In animal and forest based products, Bulandshahr units mostly sell non-locally while Moradabad units sell mostly locally; Allahabad units combine the two outlets equally. Non-local sale dominates the engineering products in Bulandshahr, but local sales form the major part of these products in Allahabad. Local sale is dominant in chemicals in Moradabad but the non-local sale is important in that industry in Allahabad.

Part of this difference among industries and districts is on account of the fact that certain units produce goods not for the final consumer, but intermediate products for use of other producers and whether they sell locally or not depends on whether the user units of such products are located there or not. As shown in Table 6.4, there are 50 units in our sample, 16 in Balandshahr, 15 in Moradabad and 19 in Allahabad, which produce intermediate products.

Table 6.4

District-wise Distribution of Sample Units by Sale of Intermediate Products

(Number)

Industry Group	Units Selling Their Intermediate Products						
	Balandshahr		Moradabad		Allahabad		Combined
	Lo-	Non-	Lo-	Non-	Lo-	Non-	Lo-
	cally	locally	cally	lo-	cally	lo-	ca-
	lly	lly	lly	lly	lly	lly	lly
Food Products	-	-	-	1	-	-	-
Animal and forest based products	-	2	3	-	2	1	5
Chemical products	-	1	3	1	4	1	7
Metal utensils	-	-	2	2	-	-	2
Engineering	-	7	-	1	6	3	6
Ceramics	-	5	-	-	-	-	5
Others	-	1	1	1	2	-	3
Total	-	16	9	6	14	5	27

None of the Balandshahr units sell these products entirely locally, 60 per cent of the Moradabad units reported selling locally, but 74 per cent of these units in Allahabad sold their intermediate

products locally. The largest number of units producing intermediate products are in the product groups engineering and chemicals; Allahabad units in these products groups mostly find the users of their output locally, to a lesser extent it is true of Moradabad also, but hardly true for Bulandshahr. To this extent development of new industrial units in backward districts produces a smaller overall impact on the local economy than it does in the relatively better developed districts.

This pattern is also revealed by our investigation into the extent of systematic forward linkages in terms of the existence of regular arrangements of the sample units for sale of their products to other units. Such arrangements are mostly found in the case of producers of intermediate products. One-third of sample units, i.e. most of those producing intermediate products, are found to have such forward linkages on a regular basis. Units in engineering and ceramics had such sales arrangements with other units more frequently than those in other industries. Accordingly, around two-fifth of units in Bulandshahr and Allahabad each had such arrangements but percentage of such units was only 18 in Moradabad. While two-third of the purchaser units so linked with some of the sample units, were local in Allahabad, the local units constituted less than one-fourth of the buyers in Bulandshahr and Moradabad. Thus, forward linkages based on the sale of products to total units on a regular basis are also found to be rather weak, except perhaps in the case of Allahabad.

Let us now look at linkages and impact produced in ways other than sale and purchase of raw material and goods produced locally. Forty per cent of the sample units claimed to have given inducement for the growth of ancillary activities and services in the district. Twenty eight per cent directly helped in the establishment of some other units. The helping units formed 25 per cent of the sample in Bulandshahr, 23 per cent in Moradabad and 38 per cent in Allahabad. Most (two-thirds) of the units helped were in lines complementary to the sponsoring units and were located within five kilometers of the parent unit. Help in establishment of other units was found more frequent in metal utensils, chemical products, engineering and ceramics and least in food products and forest-based products. Further, one-sixth of units claimed to have contributed to the supply of entrepreneurs, either through some of their employees starting an independent unit or starting another unit in which one of their partners took independent charge. Such units constituted 10 per cent of the sample in Bulandshahr, 15 per cent in Moradabad and 27 per cent in Allahabad.

CHAPTER VII

Concessional Finance in Location Decisions

The impact that industrial growth produces through direct and indirect linkages and through development of an industrial climate and entrepreneurship in a backward area, is of course, not directly linked with concessional finance. It is a function of the type of industrial structure that develops in the area and other promotional efforts that are made. But the most direct way in which the institutional finance helps industrial development of a backward area is by influencing the location decisions of the entrepreneurs in favour of such areas through providing incentives by way of concessions. It is, therefore, interesting to know the entrepreneurs' assessment of concessional finance as a consideration in deciding locations of their units, in conjunction with several other factors that contribute to such decision making. Obviously, in each case there are multiple factors which influence the entrepreneurs' decisions. Some of these factors are local demand, availability of raw materials and credit and facilities of infrastructure.

1. Factors Influencing Locations of Sample Units (District-wise)

Against the entire sample of 142 units, our enquiry in the above context relates to 129 units only. The remaining 13 units, which were established prior to the start of concessional finance scheme, have not been considered for the purpose of present analysis because the location decisions in their case could not have been

influenced by availability of concessional finance, which was not in operation at the time of their establishment. Our sample of 129 entrepreneurs has yielded 481 responses to our enquiry in the present context. The percentages of entrepreneurs stating different factors influencing their decisions about locations of their units in the three selected districts are given in Table 7.1. Local demand

Table 7.1

Responses of Entrepreneurs Regarding the Factors Influencing Locations of Their Industrial Units

Factors	Responses of Entrepreneurs (Number)			
	Bulandshahr	Moradabad	Allahabad	Combined
Availability of raw materials	16 (37)	28 (57)	10 (27)	54 (42)
Availability of credit	19 (44)	25 (51)	21 (57)	65 (50)
Availability of power	19 (44)	15 (31)	27 (73)	61 (47)
Availability of land	10 (23)	7 (14)	33 (89)	50 (39)
Availability of water	1 (2)	3 (6)	24 (65)	28 (22)
Availability of road/rail	16 (37)	13 (27)	17 (46)	46 (36)
Concessional finance	18 (42)	29 (59)	12 (32)	59 (46)
Local demand	35 (81)	34 (69)	22 (59)	91 (71)
Nearness to industrial/commercial centres	8 (19)	2 (4)	17 (46)	27 (21)
Base: Number of Industrial units	43	49	37	129*

*This excludes the remaining 13 industrial units which were established prior to start of concessional finance scheme. The figures given in parentheses denote percentages to the total number of units column-wise.

emerges as exerting greatest influence in location decisions, in terms of the entrepreneurs' assessment. This is particularly true in case of the two backward districts. Availability of land, power and water, however, are more often mentioned as factors in location than local demand by entrepreneurs in Allahabad. These factors are seen as much less important in attracting industries to the two backward districts. Concessional finance emerged as second most important factor in Moradabad and fourth most important factor in Bulandshahr and, understandably, of least significance in Allahabad. Availability of raw material seems to provide a significant advantage only in Moradabad and availability of credit facilities in general and transport connection in Allahabad. The differential pattern of importance of various factors as assessed by entrepreneurs, among different districts, to some extent, reflects the real relative advantage of districts, particularly in respect of availability of concessional finance. But part of the differences in assessment may also reflect the different structure of products and differential requirements of the units in different industries.

In the food products industry, all sample units which were from Moradabad, availability of raw material provides the most important influence on location, followed by concessional finance and local demand. In animal and forest based products local demand and concessional finance, have greatest and similar importance, but availability of power and raw material is only slightly less important. Sample of this industry is well spread in all the three

districts. In chemicals most of the units in the sample are in Moradabad, and local demand and availability of power emerge as the most important influence followed by availability of land and concessional finance. Metal utensils, again concentrated in Moradabad, get located mainly on the basis of availability of raw material and local demand. Engineering units which dominate the structure of sample in Allahabad, find availability of land, power, local demand and credit as the important influences on location. Location of ceramics units, a speciality of Balandshahr, depends on local demand for their product, concessional finance providing an additionally important attraction.

2. Factors Influencing Locations of Sample Units (Industry-wise)

Alternatively, the entrepreneurs' assessment of concessional finance as consideration in deciding locations of their industrial units can also be attempted by analysing the industry-wise aggregative picture of multiple responses of entrepreneurs against above mentioned factors for all the three selected districts. This would help in identifying the degree of effectiveness of a factor in location decision. The highest percentage of responses of entrepreneurs for a particular factor against a particular industry would indicate its most effectiveness in deciding the locations of industrial units falling in that industry group. The effectiveness of other factors in locational decisions will go on reducing with the fall in percentages of such responses against those factors. The industry-wise responses of entrepreneurs for different factors influencing their locational decisions are given in Table 7.2.

Table 7.2

Industry-wise Responses About Factors Influencing Locational Decisions of the Entrepreneurs

Factors	Food products	Animal and forest based products	Chemical products	Metal utensils	Engineering	Ceramics	Others	TOTAL
Availability of raw materials	7 (78)	7 (47)	8 (35)	12 (63)	4 (17)	12 (44)	4 (31)	54 (42)
Availability of credit	6 (67)	7 (47)	11 (48)	9 (47)	12 (52)	12 (44)	8 (62)	65 (50)
Availability of power	3 (33)	6 (40)	11 (48)	9 (47)	13 (57)	13 (48)	6 (46)	61 (47)
Availability of land	1 (11)	4 (27)	10 (43)	5 (26)	17 (74)	4 (15)	9 (69)	50 (39)
Availability of water	- (-)	2 (13)	8 (35)	2 (11)	8 (35)	1 (4)	7 (54)	28 (22)
Availability of road/rail	3 (33)	6 (40)	7 (30)	6 (32)	10 (43)	11 (41)	3 (23)	46 (36)
Concessional finance	7 (78)	8 (53)	11 (48)	9 (47)	9 (39)	11 (41)	4 (31)	59 (46)
Local demand	5 (56)	11 (73)	12 (52)	12 (63)	14 (61)	26 (96)	11 (85)	91 (71)
Nearness to industrial/commercial centres	- (-)	2 (13)	2 (9)	3 (16)	11 (48)	4 (15)	5 (38)	27 (21)
Base: Number of Industrial Units	9	15	23	19	23	27	13	129*

* This excludes the remaining 13 industrial units which were established prior to the start of concessional finance. Figures in parentheses denote percentages to the base.

As seen earlier, local demand emerges as the first most powerful and decisive factor in influencing locational decisions of the entrepreneurs in the sample of 129 units. Availability of credit and power facilities according to the degree of their effectiveness in the present context stand at second and third place and the concessional finance finds its place at fourth among the factors under consideration.

Turning to the industry-wise entrepreneurial assessment of locational factors we find that locational decisions of the entrepreneurs of food product units, are dominated mainly by the two factors of concessional finance and the availability of raw materials. In case of animal and forest based products, local demand emerges as exerting greatest influence and concessional finance occupies place only next to it in influencing entrepreneurs decisions regarding the locational choice of their units. Again, local demand emerges as the main decisive factor in locational decisions of the entrepreneurs for setting up industrial units of chemical products and metal utensils; but the role of concessional finance which merits second among the factors, is only slightly less important in attracting such industries in backward districts. Among the industry groups of 'engineering', 'ceramics' and 'others', local demand plays the most crucial role in locational decisions and concessional finance can be treated as a factor providing an additional important attraction.

To sum up, concessional finance is considered a more or less uniformly important factor in location of various industries in backward districts. The role of other factors cannot be undermined; however, the degree of their effectiveness differs from one industry group to another.

CHAPTER VIII

Conclusion

1. Since the State of Uttar Pradesh as a whole is industrially backward, the issue of industrial development of the State as such, rather than of the relatively backward districts specifically has received greater concern. As a result, till recently the spatial pattern of industrial development had followed a 'natural' pattern; the relatively developed districts attracted a proportionately larger share of new industrial activity and the more backward ones got less than proportionate share. During the last few years, particularly after 1974, however, the trend seems to have changed more in favour of the group of notified backward districts: their industrial growth has been more rapid than of the non-backward districts, and consequently, their share in the State's industrial activity has also improved. We find that the efforts of financial institutions, particularly the availability of concessional finance has made significant contribution in this process. This is evidenced by, for example, a significant step up of IDBI project finance and UPFC loans to industrial units in backward districts during this period.
2. Industrial growth of the two selected backward districts (Moradabad and Bulandshahr) vis-a-vis one selected Non-backward district (Allahabad) has followed the same pattern of growth of industries and of institutional efforts as indicated above. Moradabad had, however, gained even in the earlier period, but ..

Bulandshahr has been able to pick up only recently. The three districts initially showed differences not so much in terms of infrastructure as of the level and structure of industrial activity. ✓ Length of metalled road per 1000 square kilometers of area, as a single indicator of infrastructure was 170, 130 and 150 Kms. respectively in Allahabad, Moradabad and Bulandshahr in 1971. But the percentage of workers in the non-household manufacturing sector to total population in 1971 was 1.20, 1.60 and 0.98 respectively in the three selected districts. Besides, Allahabad had industries in most of the major groups and interrelated subgroups; Moradabad had mainly metal utensils, but also a sprinkling of a number of other industries; while the industrial activity of Bulandshahr district was mainly concentrated in pottery in Khurja. It thus looks that while Allahabad could grow on its own momentum supported by availability of institutional finance on easy terms, Moradabad was well poised for the fullest use of the facility of concessional finance. Bulandshahr, on the other hand, took some time before it could absorb the financial assistance made available on concessional terms. Thus, it seems necessary to distinguish even among the notified backward districts, not only in terms of the disadvantages of infrastructure, but also the industrial base of a district which seems the primary determinant of the impact that availability of financial assistance can make. Accordingly, the degree of assistance and concessions has also to vary among districts.

3. Another implication of the above finding is that in order to make concessional finance effective, it will also be necessary to plan to develop a minimum threshold level of industrial activity preferably with strong inter-relationships among industries. It may not be easy for the financial institutions alone to undertake this task. An organisation having representatives of the financial institutions, promotional institutions, State and district administration, and potential industrial entrepreneurs may be required for such planning for each of the more backward of the backward districts. This also seems necessary with a view to ensuring supply of other inputs such as fuel and power, raw material and marketing, which feature as more important constraints than finance in the development of backward areas.

4. Even with the relatively low level and undiversified structure of industries, institutional finance seems to have produced significant impact in the two backward districts and one non-backward district studied here. Concessional finance naturally had a greater impact in the backward districts. A rapid growth has taken place in the number of units in the backward districts and most of the new units are run by local entrepreneurs. It is also significant to note that concessional finance has proved one of the most important consideration in location of a large number of new units in the backward districts.

5. Almost one-half of the fixed and working capital requirements of the units studied has been met by institutional financing, and

most of the fixed capital financing has been on the basis of concessional finance, particularly in the backward districts. Units availing of concessional finance have experienced a higher rate of growth of output than those without it. Direct employment generation has, however, been rather low in units availing concessional finance, although most of these units are in industries which are expected to have greater backward and forward linkages so as to generate a larger impact on the economy of the area.

6. Industrial growth helped by concessional finance in backward districts is found to have generated some impact on their economy through purchase of raw material, machinery, purchase and sale of intermediate products, supply of entrepreneurs, emergence of service and repair shops etc. The impact is, however, not yet very significant due to the low level and weak structure of industrial activities in backward districts. One finds that some of the linkages are stronger in Allahabad, the industrially non-backward district. Whatever linkages and impact have been generated, however, cannot directly be attributed to the availability of finance and concessions as such. For, such assistance does not discriminate between industries on the basis of linkages and impact. It may, in fact, be advisable to think of such discrimination : where the industries having greater potential for making an impact on the economy of the area get greater concession than ones which have hardly any backward and forward linkage potential.

7. So far as the administration of the scheme of concessional finance is concerned, majority of the units surveyed found no particular problem with it. One-fourth of the units, however, indicated variety of problems : cumbersome procedures, inadequacy of concession to compensate for the disadvantages of a backward district location; and difficult repayment terms, were the more frequently mentioned ones. The suggestions made by them also followed the same pattern. Simplification of procedures, expedient sanctions and reduction in the number of documents required to be submitted formed one group of suggestions. Units in Bulandshahr particularly thought they are at a significant disadvantage as compared to other nearby industrial centres, Ghaziabad and Delhi, and, therefore, the concessions given to them should have larger quantum. On repayment term, the main suggestion related to the waiving of penalty on rate of interest and judicious rescheduling of instalments in case of genuine inability of the entrepreneurs to repay as a result of irregular production due to power shortage, non-availability of coal and constraints in the supply of other inputs. Quite a few entrepreneurs felt that the lending institutions have a purely commercial rather than promotional approach in dealing with the entrepreneurs. On the other hand, follow-up was reported to be deficient. The entrepreneurs expected agencies like the UPFC to visit the units frequently and not forget them after sanctioning loans till repayment of instalment became due; and help them in solving the problems they face in the matters of supply of essential inputs.

Appendix I

List of Industrially backward Districts Selected
to Qualify for Concessional Finance from the Fi-
nancial Institutions (as on 1.7.1978)

Sl. No.	State	Number of districts eligible for conce- ssional finance	Districts
0	1	2	3
1.	Andhra Pradesh	14	Anantapur, Chittoor, Cuddapah, Karimnagar, Khammam, Kurnool, Mehbubnagar, Medak, Nalgonda, Nellore, Nizamabad, Ongole (Krakasam), Srikakulam and Warangal
2	Assam	7	Cacher, Goalpara, Kamrup, Mikir hills, North Cachar hill, Nowrang and New Lakhimpur
3.	Bihar	17	Bhagalpur, Champaran, Darbhanga, Kazipur, Kaimur, Purnea, Sanarsa, Santhal, Parganas, Saran, and new districts of Malda, Aurangabad, Kawadah, Gaya, Bhujpur, Begusarai and Monghyr.
4.	Gujarat	10	Amdavi, Banaskantha, Bhavnagar, Broach, Junagadh, Kutch, Mehsana, Ranmahals, Sabarkantha and Surendernagar
5.	Haryana	4	Bhiwani, Hissar, Jind and Mohindergarh
6.	Himachal Pradesh	7	Chamba, Kangra, Kinnaur, Kulu, Lahaul and Spiti, Solan and Sirmur
7.	Jammu & Kashmir	10	Anantnag, Baramula, Doda, Jammu, Kathua, Ladakh, Poonch, Rajouri, Srinagar and Udhampur
8.	Kerala	5	Alleppey, Cannanore, Malappuram, Trichur and Thrivandrum

D	I	2	3
9.	Karnataka	11	Belgaum, Bidar, Bijapur, Davarwar, Gulbarga, Hassan, Mysore, North Kanara, Raichur, South Kanara and Tumkur
10.	Madhya Pradesh	56	Balaghat, Baster, Betul, Sillaspur, Bhind, Chhatarpur, Chhindwara, Damoh, Datia, Dhar, Dewas, Guna, Hosnangabad, Jhabua, Khargone, Mandla, Mandaur, Morena, Karsimpur, Ranna, Raigarh, Raipur, Rajnandgaon, Rajgarh, Raisen, Ratlam, Rewa, Sagar, Seoni, Sonapur, Shivpuri, Sidhi, Surguja, Tikamgarh, Vidisha and new Sehore district
11.	Maharashtra	13	Aurangabad, Beandara, Bhir, Buldhana, Chandrapur, Colaba, Dhulia, Jalgaon, Nanded, Osmanabad, Parbhani, Ratnagiri and Yeotmal
12.	Manipur	5	All the 5 districts.
13.	Meghalaya	3	Garo Hills and United Khasi and Jaintia Hills
14.	Nagaland	3	Kohima, Mokokchung and Tuensang
15.	Orissa	8	Balasore, Bolangir, Bhadrak, Kalanandi, Keonjhar, Koraput, Nayurbhanji and Phulbani
16.	Punjab	5	Bhatinda, Gurdaspur, Hoshiarpur, Ferozpur and Sangrur
17.	Rajasthan	16	Alwar, Banswara, Barmer, Chilwara Churu, Dungarpur, Jaisalmer, Jalore, Jhunjhunu, Jhalewar, Jodhpur, Nagaur, Sikar, Sirohi, Tonk and Udaipur
18.	Sikkim	4	All the 4 districts of Gangtok, Mangan, Gyalshing and Nemchi
19.	Tamil Nadu	9	Dharmapuri, Kanyakumari, Madurai, North Arcot, Ramanathapuram, South Arcot, Thanjavur, Tiruchirappalli and Kewadiukkottai district

	0	1	2	3
20.	Tripura		3	All the 3 districts
21.	Uttar Pradesh		34	Aimore, Azamgarh, Bedaun, Bajraich, Ballia, Banda, Barabanki, Basti, Bulandshahr, Chamoli, Deoria, Etah, Etawah, Faizabad, Farrukhabad, Fatehpur, Hardoi, Jalaun, Jaunpur, Jhansi, Kanpur, Mathura, Moradabad, Pilibhit, Pithoragarh, Pratapgarh Rai Bareli, Rampur, Sambhalpur, Sitapur, Sultanpur, Tehri Garhwal, Unnao and Uttar Kashi
22.	West Bengal		13	Bankura, Birbhum, Burdwan, Cooch-Behar, Darjeeling, Hoogly, Jalpaiguri, Malda, Midnapur, Murshidabad, Nadia, Purulia and West Dinapur
23.	Andaman and Nicobar			Entire area
24.	Arunachal Pradesh			Entire area
25.	Dadra and Nagar Haveli			Entire area
26.	Goa, Daman and Diu			Entire area
27.	Lakshadweep			Entire area
28.	Mizoram			Entire area
29.	Fondicherry			Entire area

Appendix II

State-wise Financial Assistance Sanctioned by Term-Lending
Financial Institutions on Concessional Terms for Projects
in Backward Districts from the Commencement of the Scheme
in the Middle of 1970 to June 1977

Sl. No.	State	(Rs.lakhs)						Percen- tage to the total	
		Industrial Development Bank of India(IDBI)			IFCI	ICICI*	Total (4+5+6)		
		Direct	Refina- nce	Total					
0	1	2	3	4	5	6	7	8	
1.	Andhra Pradesh	3842.78	1363.25	5206.03	909.91	805.00	6920.94	11.13	
2.	Assam	2351.00	331.78	2682.78	195.00	260.00	3137.78	5.05	
3.	Bihar	241.90	1038.17	1280.07	198.00	200.00	1678.07	2.70	
4.	Gujarat	889.32	2801.34	3690.66	362.31	467.00	4519.97	7.27	
5.	Haryana	461.55	499.87	961.42	535.06	183.00	1679.48	2.70	
6.	Himachal Pradesh	195.00	404.66	599.66	189.50	69.00	858.16	1.38	
7.	Jammu and Kashmir	850.00	192.80	1042.80	61.00	30.00	1133.80	1.82	
8.	Karnataka	1326.28	2068.10	3394.38	680.60	677.00	4751.98	7.65	
9.	Kerala	1028.65	1210.87	2239.52	238.22	424.00	2901.74	4.67	
10.	Madhya Pradesh	1017.79	750.83	1768.62	267.40	326.00	2362.02	3.80	
11.	Manipur	-	16.80	16.80	-	-	16.80	0.03	
12.	Meghalaya	299.60	70.28	369.88	84.00	24.00	477.88	0.77	
13.	Maharashtra	1318.76	1670.21	2988.97	1189.07	1491.00	6269.04	10.08	
14.	Nagaland	50.00	28.00	78.00	50.00	-	128.00	0.20	
15.	Orissa	107.50	579.14	686.64	112.32	40.00	838.96	1.35	
16.	Punjab	350.70	656.43	1007.13	221.00	267.00	1495.13	2.40	
17.	Rajasthan	1251.27	1355.15	2606.42	501.61	359.00	3467.03	5.58	
18.	Sikkim	-	-	-	-	-	-	-	
19.	Tamil Nadu	2344.00	2392.05	4736.05	884.35	775.00	6395.40	10.29	
20.	Tripura	-	21.33	21.33	65.31	-	86.64	0.14	
21.	U.P.	3063.75	1717.55	4781.30	1960.26	468.00	7209.56	11.60	
22.	W.Bengal	1306.80	1237.05	2543.85	414.19	482.00	3440.04	5.53	
23.	Andaman & Nicobar	-	-	-	30.90	-	30.90	0.05	
24.	Arunachal Pradesh	-	-	-	-	44.00	44.00	0.01	
25.	Dadra & Nagar Haveli	-	57.37	57.37	-	-	57.37	0.09	
26.	Goa, Daman and Diu	170.00	542.32	712.32	345.00	851.00	1908.32	3.07	
27.	Lakshadweep	-	-	-	-	-	-	-	
28.	Mizoram	-	-	-	-	-	-	-	
29.	Pondicherry	121.25	111.03	232.28	47.50	59.00	338.78	0.54	
Total		22587.90	21116.38	43704.28	10142.51	8301.00	62147.79	100.00	

* Relates to the period upto December 31, 1977.

APPENDIX III

**District-wise Number of Existing Industrial Estates
and Industrial Complexes in U.P. During March, 1981**

(Number)

Region/District	Industrial Estates	In Industrial Estates			Industrial Complexes
		Availability of Sheds	Sheds	Plots	
1	2	3	4	5	
I. WESTERN REGION					
1. Agra	2	112	152	2	1
2. Aligarh	3	41	239	11	1
3. Bareilly	2	55	107	1	1
4. Bijnor	2	28	37	1	1
5. Badaun	2	-	-	1	1
6. Bulandshahr	2	36	-	1	1
7. Etah	2	27	39	1	1
8. Etawah	1	10	25	1	1
9. Farrukhabad	2	22	32	1	1
10. Malsipuri	2	10	31	1	1
11. Mathura	1	12	37	1	1
12. Meerut	1	31	86	1	1
13. Ghaziabad	1	34	24	1	1
14. Moradabad	2	20	63	1	1
15. Nizamuddinagar	2	-	59	1	1
16. Pilibhit	1	10	11	1	1
17. Rampur	2	-	102	1	1
18. Saharanpur	2	45	109	1	1
19. Shahjahanpur	1	-	86	1	1
TOTAL	29	461	1406	16	
II. CENTRAL REGION					
20. Barabanki	1	8	78	1	1
21. Fatehpur	1	-	46	1	1
22. Hardoi	1	-	-	2	1
23. Kannauj	3	91	96	1	1
24. Kheri	2	10	50	1	1
25. Lucknow	1	31	108	2	1
26. Rae Bareilly	1	-	-	1	1
27. Sitapur	2	11	61	1	1
28. Unnao	1	11	24	1	1
TOTAL	11	162	495	10	

	1	2	3	4	5
III. EASTERN REGION					
39. Allahabad	2		10	84	-
40. Azamgarh	2		21	16	1
41. Bahraich	2		10	12	1
42. Ballia	2		6	68	2
43. Basti	2		17	73	1
44. Beoria	2		29	54	1
45. Faizabad	2		10	64	1
46. Ghazipur	2		6	64	1
47. Gonda	2		-	-	1
48. Gorakhpur	2		16	51	1
49. Jaunpur	2		9	8	1
50. Mirzapur	2		16	11	1
51. Pratapgarh	2		-	-	1
52. Sultanpur	1		10	16	1
53. Varanasi	2		69	60	1
TOTAL	18	235	565	6	
IV. BUNDELKHAND REGION					
46. Banda	1		8	12	1
45. Hanipur	1		8	12	-
46. Jalaun	1		8	16	-
47. Jhanai	1		18	26	2
48. Lalitpur	1		8	22	-
TOTAL	5	50	88	3	
V. HILL REGION					
49. Almora	1		12	-	1
50. Pithoragarh	-		-	-	-
51. Dehradun	2		26	19	1
52. Pauri Garhwal	1		12	15	-
53. Chanoli	-		-	-	-
54. Nainital	3		26	113	2
55. Tehri Garhwal	-		-	-	-
56. Uttar Kashi	-		-	-	-
TOTAL	7	76	167	4	
U.P. STATE	70	562	1,141	33	

Source : Development of Industries in U.P. Progress Report - 1960-61
 Directorate of Industries, Xapur, U.P.

APPENDIX IV

Public Sector Large and Medium Scale Industries in
Backward and Non-Backward Districts of U.P. as on
31 March 1981

Sector/Unit	Capital Investment (Rs. crores)	Employment (Number of Persons)
1	2	3
A. CENTRAL SECTOR		
I. Backward Districts		
1. Indian Telephone Industry Rae Barelli	16.50	8750
2. Bharat Heavy Electricals Ltd. Jhanai	16.25	1600
TOTAL	32.75	10350
II. Non-Backward Districts		
1. TAFCO Ltd. Kanpur	3.00	2800
2. Anti Biotic Factory, Rishikesh, Dehradun	50.00	5500
3. Heavy Electricals, Hardwar, Saharsapur	90.00	6000
4. Fertilizer Factory, Gorakhpur	35.00	2250
5. Diesel Locomotive, Varanasi	20.00	6150
6. Singrauli Coal Fields, Mirzapur	10.00	3700
7. Triveni Structural, Naini, Allahabad	7.50	1600
8. Modern Bakeries, Kanpur	0.35	150
9. Indian Telephone Factory, Naini, Allahabad	7.40	3900
10. Bharat Pumps and Compressors, Naini, Allahabad	18.50	2500
11. HAL, Kanpur	50.00	3200
12. HAL, Lucknow	6.70	3000
13. Telephone and Allied Equipments, Naini, Allahabad	5.00	6000
14. Scooter's India Ltd., Lucknow	13.50	2200
15. Bharat Electricals, Gaziabad	11.50	3700

1	2	3
16. Artificial Limbs, Kanpur	4.00	1300
17. Central Electronics, Gaziabad	3.50	1200
18. Foundry Forge, Haridwar, Saharanpur	35.50	2000
19. Fried Meat Plant, Tundla, Agra	3.00	1500
TOTAL	374.45	38650
U.P. : AGGREGATE	407.20	69000

B. STATE SECTOR**I. Backward Districts**

1. Cement Factory, Churk, Mirzapur	7.70	1700
2. Cement Factory, Dallia, Mirzapur	13.00	1650
3. Spinning Mill, Nayagaon, Jhansi	5.20	800
4. Spinning Mill, Sandila, Hardoi	5.20	800
5. Spinning Mill, Akbarpur, Faizabad	4.80	800
6. Spinning Mill, Rae Bareilli	5.14	800
7. Spinning Mill, Man Nath Rhanjan, Azaigarh	5.05	800
8. Spinning Mill, Barabanki	5.14	800
9. Sugar Mill, Chhata, Mathura	6.00	700
10. Sugar Mill, Nandganj, Gazipur	6.00	700
11. Sugar Mill, Dariyapur, Rae Bareili	6.00	700
TOTAL	69.39	10250

II. Non-Backward Districts

1. Spinning Mill, Meerut	5.40	800
2. Spinning Mill, Kachipur, Nainital	5.10	800
3. Sugar Mill, Kichha, Nainital	5.00	800
4. Sugar Mill, Chandpur, Bijnor	6.00	700
5. Uptron, Ltd., Naini, Allahabad	6.30	400
6. Uptron Ltd., Saroninagar, Lucknow	0.23	250
7. Uptron Capacitor Ltd., Lucknow	0.43	350
8. Uptron, Digitel Systems, Lucknow	1.02	126
9. Uptron Instruments, Lucknow	0.28	300
TOTAL	29.78	4526
U.P. : OTHER PARK	99.17	14776

	1	2	3
C. JOINT SECTOR			
I. Backward Districts			
1. Almora Magnesite, Almora	3.92	718	
2. U.P. Twig Fibre Glass Ltd., Bulandshahr	9.88	496	
3. U.P. Synthetic Foams, Bulandshahr	0.90	150	
4. U.P. Tyres and Tubes Ltd, Rae Bareilly	2.44	290	
5. Jayanti Solvents, Rae Bareilly	0.58	75	
6. Industrial Gas Plant, Unnao	0.32	80	
TOTAL	17.94	1809	
II. Non-Backward Districts			
1. U.P. Instruments Ltd, Lucknow	0.78	550	
2. U.P. Digitels Ltd, Bhuwali, Nainital	0.26	110	
3. U.P. Asbestos, Mohanlalganj, Lucknow	1.70	220	
4. U.P. Tools and Pharmaceuticals, Lucknow	1.50	200	
5. Wool Spinning Mill, Shadoni, Varanasi	1.25	160	
6. Hindustan Computers, Gaziabad	0.40	50	
7. Uptron Powertronics, Gaziabad	0.57	100	
8. Uptron Components, Kanpur	0.26	30	
9. Uptron S. Ltd., Gaziabad	0.26	30	
TOTAL	6.98	1450	
U.P. : AGGREGATE			
	24.92	3259	

	1	2	3
11. Sugar Mill, Amritshahr, Bulandshahr	5.00	800	
12. Sugar Mill, Sathiyon, Azimgarh	5.00	800	
TOTAL	39.95	8750	

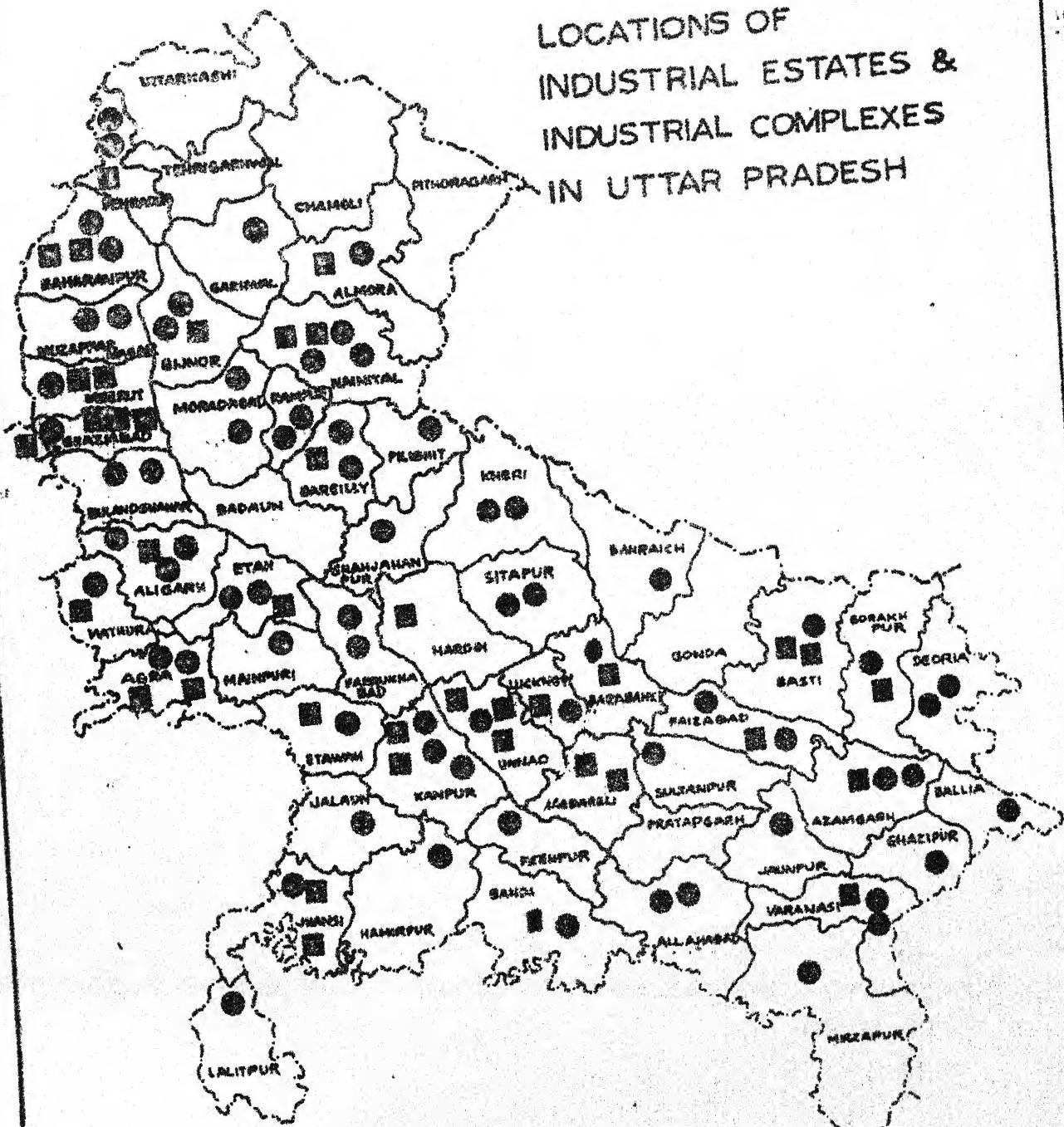
II. Non-Backward Districts

1. Fertilizer Factory, Allahabad	167.70	700
2. Cotton Spinning Mill, Bijnor	5.00	700
3. Sugar Mill, Bajpur, Nainital	2.00	800
4. Sugar Mill, Sarsawan, Saharanpur	2.00	800
5. Sugar Mill, Baghpat, Meerut	2.00	800
6. Sugar Mill, Aurai, Varanasi	2.00	800
7. Sugar Mill, Hardwaganj, Aligarh	5.00	800
8. Sugar Mill, Razia, Meerut	5.00	800
9. Sugar Mill, Nadchi, Nainital	5.00	800
10. Sugar Mill, Kheri	6.87	800
11. Sugar Mill, Saharanpur	5.00	800
TOTAL	212.57	9400
U.P. : AGGREGATE	252.52	18150
GRAND TOTAL (A+B+C+D)		
I. Backward Districts	160.03	31159
II. Non-Backward Districts	623.78	74026
U.P. : AGGREGATE	783.81	105185

Source : Development of Industries in U.P., Progress Report - 1980-81, Directorate of Industries, U.P., Kanpur.

MAP 1

LOCATIONS OF
INDUSTRIAL ESTATES &
INDUSTRIAL COMPLEXES
IN UTTAR PRADESH



INDUSTRIAL ESTATES ●

INDUSTRIAL COMPLEXES ■